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No. 4

MORTALITY IN RETAIL TRADE

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No. 4

Mortality in Retail Trade *(an expansion and revision of No. 1 of the University of Buffalo Studies in Business)*. By Edmund D. McGarry, Professor of Economics and Marketing. Price, $3.00.

University of Buffalo
Studies in Business

No. 4

MORTALITY
in
RETAIL TRADE

BUREAU OF BUSINESS
AND
SOCIAL RESEARCH

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MORTALITY IN RETAIL TRADE

A STATISTICAL ANALYSIS OF ENTRANCES INTO AND EXITS FROM THE RETAIL GROCERY, DRUG, HARDWARE, AND SHOE TRADES IN BUFFALO OVER THE PERIOD 1918-1928, WITH SPECIAL REFERENCE TO THE GROCERY TRADE.

By
EDMUND D. MCGARRY

BUFFALO
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BUREAU OF BUSINESS
AND SOCIAL RESEARCH
1930

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PREFACE

THIS volume embodies the results of an investigation of the mortality of retail stores in Buffalo, which was begun in the summer of 1928, as part of the writer's work as a member of the Committee on Business and Social Research of The University of Buffalo. The first installment of the study was published by the Bureau of Business and Social Research in the *Statistical Survey* for November, 1928, under the title, "The Mortality of Independent Retail Grocery Stores in Buffalo between 1918 and 1926." A second installment was published in the *Statistical Survey* for March, 1929, under the title, "The Mortality of Independent Drug Stores in Buffalo between 1918 and 1926." The reception accorded these two articles led to their expansion into a more comprehensive study of the retail grocery, drug, hardware and shoe trades which was published as Monograph No. 1, of The University of Buffalo Studies in Business, under the title *Retail Trade Mortality in Buffalo, 1918-1928.* In these studies the basic statistical data with regard to the entrances into and exits from these trades were presented with but little interpretation.

In the present book, after an introductory chapter concerning the significance of retail trade mortality, and a chapter on the method and scope of the investigation, I have reprinted, in revised form, the monograph mentioned above (Chapters II to VI of the present work). These latter chapters treat of the mortality of grocery, drug, hardware and shoe stores, concluding with a summary of

the statistical data. For each of these trades I have analyzed the entrances and exits over a ten year period, determined the mortality rates for the various years studied, and computed the "Life Expectancy" of the stores. In the summary given in Chapter VI, I have compared these ratios for the four trades.

Chapter VII analyzes the factors which cause people to enter the retail business, introducing original data to show the types of business which newcomers enter, and the occupations from which these newcomers are drawn. Chapter VIII considers the causes which lead proprietors to withdraw from business. In Chapter IX is discussed the effect of economic changes on retail trade mortality, the basic data for which are taken from an original study of the buying habits of 550 housewives. In Chapter X an analysis of Buffalo stores with relation to population is given, showing the influence of the density of population per store upon mortality rates. Chapter XI discusses the effect of chain stores upon the mortality rates of independent stores. In the final chapter the business and economic consequences of retail trade mortality are analyzed and evaluated, and suggestions are made for minimizing the losses which ensue from high mortality.

In Appendix A are given the original data from which many of the tables in the text are computed. Appendix B consists of two additional studies which tend to support the discussion in the text. The first of these is an analysis of the credit ratings for Buffalo firms, as given by R. G. Dun and Company. The second is a computation of the coefficients of partial correlation between the numbers of

grocery stores per 1000 inhabitants, the percentages of chain stores to all stores and the mortality rates for the different wards in Buffalo. The latter study is placed in the Appendix because the results obtained are not of sufficient significance to the present study to be incorporated in the text. In the Bibliography at the end of this book are given the published sources to which reference has been made.

Throughout the course of this investigation, I have received numerous suggestions from colleagues and friends to whom I wish to make acknowledgement and express appreciation. I am especially indebted to Professor Ralph C. Epstein for his constant advice and sympathetic criticism in organizing the material, and to Miss Florence M. Clark, Secretary of the Bureau of Business and Social Research, for her assistance in compiling and tabulating the original data. To Professors Oliver C. Lockhart, Charles S. Tippetts, Martin A. Brumbaugh and Thomas L. Norton, I am grateful for numerous and valuable suggestions.

Edmund D. McGarry

Buffalo 1930

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MORTALITY
in
RETAIL TRADE

INTRODUCTION

During the past twenty years students of marketing have increasingly centered attention upon the work of the retailer. They have studied intensively his functions and methods. They have scrutinized his financing, operating, and merchandising policies. They have analyzed his costs of doing business, his selling procedure, and his methods of remunerating salesmen. In fact, there is hardly any phase of the retailer's business which has not been minutely dissected and carefully examined for the purpose of determining how it works, and how it might be made to function more effectively. Books and articles have appeared, telling the retailer how to secure more trade, how to keep his accounts, and what methods to use in purchasing his goods. Courses have been offered by colleges, correspondence schools and trade associations to train retailers in the most modern methods. Manufacturers, wholesalers and distributors have sent special agents into the retail stores to tutor their owners in the latest ways of handling their problems.

Yet, in spite of this barrage of information, propaganda and education, great numbers of retailers are operating on a scale too small to produce a living income. Thousands find it necessary to withdraw from business each year, and thousands of others appear to exist continually on the brink of failure, awaiting the slightest misfortune to push them over.

Dr. Julius Klein, Assistant Secretary of Commerce, has estimated that there are 750,000 retailers in the United States doing an average business of less than $25,000 each per year.* The census of distribution for eleven cities shows that 28 percent of the independent retail stores in those cities had sales of less than $5000 each annually.† At 2 percent on sales, which, according to the available figures, is a good average net profit, these stores would yield only $100 in net earnings per year. From this it would appear that the industry is greatly over expanded. Yet, according to the best authorities, the number of retail dealers does not appear to be materially declining.††

In the city of Buffalo it is found that approximately one third of the grocers, one fifth of the shoe stores, one sixth of the hardware dealers, and one eighth of the drug stores withdraw from the independent retail business each year.

Over a ten year period there appears no general tendency for the number of exits from these trades to decline. But even with this enormous number of independent retailers leaving the business each year, the aggregate ranks are not depleted, for a vast army of new recruits seems always ready to fill the places of those who have withdrawn. Of the newcomers into the grocery business 60 percent find it necessary or advisable to withdraw before they have operated a single year. In the shoe, hardware, and drug trades this "infant mortality rate" was 43.8 percent, 34.5 percent, and 26.6 percent respectively.

* National Bureau of Economic Research, *Recent Economic Changes*, Vol. II, p. 538.

† Chamber of Commerce of the United States, *Retail and Wholesale Trade*, p. 73.

†† Paul H. Nystrom, *Economics of Retailing*, (Revised Edition) Vol. 1, p. 360.

These figures are forcibly brought to mind when in traveling through the trading sections of many towns we are struck by the number of empty, lifeless store fronts with "For Rent" signs hiding the names of their former occupants. Returning a week later we find many of these store rooms with new names upon their windows and new faces behind their counters, while the "For Rent" signs now decorate the windows of other stores. To the customer the passing of a single store means simply a temporary inconvenience. To the wholesaler or distributor it is usually a "bad debt"—the closing of an old account. But to the retailer himself it more than likely means the failure to become an independent business man attended by the loss of part or all of his hard-earned capital.

In general, the public is prone to look upon the individual failure as just an isolated case. It is easy to say that the retailer was incompetent and that his failure was justified. If he entered the business and lost his capital it is his own fault and society is not responsible. If it is desired further to justify the failure it is argued that competition is eliminating the unfit, and that only by the working of such ruthless competitive forces can efficiency in the business be secured.

But when we realize that part of the loss resulting from such failures (that written off by wholesalers as bad debts) usually falls upon the consumer, and is paid for through higher prices of commodities, and when we multiply these apparently isolated cases by the thousands which occur during the period of a year over the country at large, we begin to grasp the social and economic significance of the process.

Furthermore, it is possible that these withdrawals may not be due entirely to the lack of capacity on the part of the persons engaged in the business. Nor may it always be taken for granted that under present conditions competition replaces those who are unfit by those more capable, with resulting increased efficiency in the business, and a tendency towards lower prices. It is with a view to discovering whether or not most of these traditional assumptions are true that this investigation was made.

Just as medical science has been able to discover the causes of diseases through the study of vital statistics, so it would seem possible that the study of entrances into and exits from business would throw some light upon the causes for failures and perhaps suggest means of forestalling them. In the case of retail stores, however, no mortality tables have been available, nor do any records exist for the country as a whole to show the length of life for various stores, or the causes which lead them to go out of business.

In view of these facts it has seemed wise to confine the present study to a limited sample for which wholly adequate data could be secured. For this purpose the retail stores in the city of Buffalo have been selected. By using the records of the number of grocery, drug, hardware and shoe stores in this city over the period 1918-1928 inclusive, the attempt has been made to discover a common measure of the rates of entrance and withdrawal for these four trades. We have compared the number of entrances and exits for the different trades, and for the different years studied, to determine the causes of such similarities and differences as may be found. Following this, special atten-

tion has been paid to the grocery trade, and an endeavor has been made to discover, by means of primary data, the motives which lead people to enter a business and the conditions which cause them to withdraw. There were then considered the social and economic factors which appear to have an influence upon the entrance and withdrawal rates. Finally, an inquiry was made into the economic gains or losses resulting from such changing proprietorships, and means by which the losses may be avoided or minimized and the gains augmented were suggested. The chapters which follow present the results of these several investigations.

I

SCOPE AND METHOD

Several studies have been made in the past of the number of changes in proprietorship, chief among which is Professor Nystrom's detailed study of retail dealers in Oshkosh, Wisconsin, from 1890 to 1912.* The total number of stores studied in Oshkosh in 1912 was 172. These included grocery, shoe, dry-goods, men's clothing, hardware, furniture and drug stores. Professor Nystrom also studied the mortality of stores in Janesville, La Crosse, Beloit, Evansville, Edgerton, and Clinton, Wisconsin.** The total number of retail stores of all types in these towns was 516. The period studied in the different towns varied considerably. In addition to these rather elaborate investigations, the publishers of *System* made several studies, including one of Waterloo, Iowa, covering a period of thirty years, and another of Grand Rapids, Michigan. These were published in *System* thirteen years ago.† More nearly comparable in method to the present study was that of the University of Nebraska Committee on Business Research, made in 1926. This analysis was confined entirely to grocery stores in Lincoln, Nebraska, and suburbs, and covered the years 1900 to 1923.††

* Paul H. Nystrom, *Economics of Retailing* (Revised edition), Volume I, Chapter XIV, p. 400.

** Paul H. Nystrom *Economics of Retailing* (1919 edition) p. 321.

† *System*, January 1916, January 1917, and October 1917.

†† Committee on Business Research, University of Nebraska, *Some Aspects of Grocery Store Failures.*

The present study differs from those previously made in many ways. In the first place the stores included in the study are located in a large urban center, where the conditions are very different from those in smaller towns of agricultural districts. Second, the analysis covers over 9000 stores as compared with less than 600 in any of the former studies. Third, it is confined to four definite trades. Fourth, the data are more recent and thus reflect the economic changes which have taken place during the last decade. Finally, the entire scope of the study is broader, more refined statistical methods are used, and a more intensive analysis is attempted.

Buffalo as a Representative City

Buffalo was chosen as the locality for this study largely as a matter of convenience. However, it is believed that the conditions in Buffalo are fairly typical of a large number of urban centers in the United States. It is a city of approximately 550,000 population, composed of all the types and races of people which are usually found in such American centers. Like most of our large cities its population has grown considerably during the last twenty years, and has shifted somewhat from the older sections of the town to the outlying districts. Buffalo is a city of a great variety of industries, no one of which predominates. The trading habits of consumers are apparently representative of cities of its type. Like most other cities, Buffalo has its slum district and its high class districts. In fact there is nothing which would lead one to believe that conditions in Buffalo, so far as our problem is concerned, are very different from those in most large cities.

Characteristics of the Grocery, Drug, Hardware and Shoe Stores

In the selection of grocery, drug, hardware and shoe stores for this study we have been guided partly by expediency, and partly by the fact that a study of these stores would give a typical picture of the retail situation as a whole. Although the lines of goods sold in each of these four types of stores vary considerably, they are each mutually exclusive of the others. All four types of stores are distributed widely throughout the city and are patronized by all kinds and classes of people. Furthermore, they comprise the leading types of stores in which the individual proprietorship is the predominant kind of organization. There is thus less likelihood of change of ownership and retention of the original name than in stores owned by corporations. Finally, there are in each of these types a sufficient number of stores to facilitate accurate statistical analysis.

The retail grocery business is characterized by a large number of individual units scattered throughout the city. The stores handle chiefly convenience food items which are necessary for all classes and kinds of people. The units vary in sales volume from a few hundred to about a quarter of a million dollars a year. Due to changing consumer habits, especially the demand for packaged goods, dairy products and bread, the lines which grocery stores handle have been continually expanded over the last twenty years, with a consequent increase in the total annual grocery sales. Although the amount of business done by an individual retailer often varies considerably from year to

year, the trade as a whole is not subject to violent fluctuations from the business cycle. The expansion of chain store merchandising has probably taken place at a more rapid rate in the grocery trade than in any other line. The chain grocery store usually handles the same lines of goods as the independent, thus competing directly for its business.

The retail drug trade, starting as a dispensary of drugs on prescriptions from doctors, has expanded its lines until today it carries a wide range of items from alarm clocks and radios to milk shakes and sandwiches. In many cases food products and branded proprietary articles make up the large proportion of the total sales. In New York and practically all other states there is a rigid requirement that every city drug store employ at least one registered pharmacist. This requirement automatically restricts the entrants into the drug business to those who have had some training. Although not so widely distributed as grocery stores, drug stores are found in practically all neighborhood trading centers as well as in the downtown districts. There is very strong chain store competition, but this competition is confined largely to food and proprietary medicines rather than to prescriptions, and is largely localized in the chief traffic centers.

The retail hardware business sells a type of semi-convenience goods used chiefly in homes. The store units are located both in the downtown trading sections and in neighborhood centers. The downtown stores often carry sporting goods and builder's hardware, whereas the neighborhood stores sell mostly kitchen ware and convenience items for the homes. The stock of a hardware store is usually large

in dollar value and it loses value by obsolescence rather than by depreciation; the margin of profit is relatively high on most items and the goods move slowly. There is practically no direct chain store competition in the hardware business, but the variety chain stores, known as the 5 and 10 cent stores, are selling many of the faster moving hardware items. The lines carried by hardware stores have also been restricted by the development of such specialty shops as radio, electric, and automobile accessory stores. At the same time the drug stores and department stores have added many lines such as cutlery and time pieces which formerly were sold chiefly in hardware stores.

Shoe stores sell a commodity which may be considered either a convenience, shopping, or specialty item, depending upon the type of shoes they sell.* The shoe trade is characterized by strong chain competition of both local and national chains, many of the national chains being manufacturers' branches. The latter usually sell higher grade shoes which are also often handled in exclusive agencies; both are generally located in the downtown trading sections. The independent stores are scattered throughout the city.

In confining ourselves to the study of these four trades we are enabled to secure data which do not overlap in classification. At the same time these types of stores should give an adequate cross section of that part of the retail business where independent proprietorships still predominate. The number of stores in each of these lines is sufficient for statistical manipulation, but not too great to make collection of the data impossible.

* Melvin T. Copeland, *Principles of Merchandising*, p. 104.

Sources of Data

The source of the data for the main part of our study is the annual directories of the city of Buffalo, which are compiled and published by R. L. Polk and Company, Detroit. The representatives of this company make a house to house, business to business canvass of all the addresses in the city, usually during the months of May, June, and July of each year. After being carefully checked, the data are classified alphabetically and according to the types of business, and are published in an annual directory in December of that year. The classified lists of stores as given in these directories are the only available records of names of proprietors and numbers of stores in Buffalo over an extended period of time. Although such lists cannot be assumed to be absolutely accurate and complete, comparison with lists which have been issued from time to time by other agencies indicates that the figures are substantially correct.

In order to make the counts of the stores given here, the name and address of each store in the city directory for 1918 was copied off upon a separate card and stamped with the year 1918. These cards were kept in alphabetical order. When the 1918 directory was finished, the names listed in the 1919 directory were examined and new cards were made for those stores which did not appear in the 1918 directory. The cards for the stores already listed in 1918 were stamped with the year 1919. This method was continued for each succeeding year so that at the end of the period the cards contained a life record of all the stores which had been listed. From these records the data were assembled as given in the tables.

In determining whether or not a store was new, a problem arose in the fact that some of the proprietors listed changed the spelling of their names. This practice was found especially prevalent in the Polish sections of the city. Wherever such changes in the spelling of names was obvious, the stores were recorded as continuing in business from the previous year. Otherwise the stores were recorded as new. Although this method is subject to some error, in that all of the names which are changed cannot be recognized, the error is not considered sufficient to invalidate the study.

The problem of definitions is one of the most difficult to handle in a study of this kind. For instance, what is a grocery store? In seeking answers to questionnaires one store was found which carried glassware, stock feed, proprietary medicines, dry-goods, baby chicks and groceries. This store was listed in the city directory as a grocery store. The problem of definitions of this kind was solved by simply taking the data as found in the classified lists in the directories. It must be recognized, however, that the city directories, made as they are for reference purposes rather than for scientific study, often carry the same store under two or more classifications. To obviate this difficulty we have selected lines which are in general mutually exclusive, and in which such overlapping is most unlikely to occur.

In order to eliminate chain stores from our study we took from our card lists all firm names which in any year had more than one address. Small chains having two to five units are rarely found in the grocery and drug business,

but they are quite numerous in the shoe trade, and some are found in the hardware business.

For the purpose of determining the types of stores in existence and discovering the causes and conditions for entrance into and exits from business, a detailed analysis was made of the "for sale" listings of one of the leading realty firms in Buffalo. This firm has specialized in "business opportunities" for a number of years. It canvasses the city for stores which are for sale, listing the name and address, volume of business, lines carried, price of the store, rent paid, and the reason for wishing to sell. As several such realty firms often list the same store, no attempt was made to secure listings of other firms.

In addition to the data taken from directories and realty listings, extensive use was made of interviews and questionnaires. Senior students in the author's classes visited about a hundred of the grocery stores which had been listed continuously in the directories over a period of eleven years. Following a definite questionnaire, these investigators recorded for each store such facts as the increase or decrease in business over the last five years, the effect of chain stores upon the business, the extent of advertising, and the number of regular customers. The students were also asked to record their general impression of the store, including its size, type of display, and cleanliness.

To discover the buying habits of consumers another class of students was used. These students interviewed over five hundred housewives, and recorded their answers to such questions as, the store from which they purchased

most of their goods, the distance of this store from their homes, whether or not they used a budget system.

The use of the word "mortality" in this study has the special meaning of "withdrawing from business." In some cases these stores may not, strictly speaking, be said to have died. They may in some instances have been very successful, and the change in proprietorship may have been due to retirement, death of former proprietor, or in some instances the same proprietor may continue to operate the store under a new name. It is believed in general, however, that a large percentage of the stores, the names of which ceased to be listed, actually did quit the business.

In making the study we have used to some extent the terminology and methods of the insurance actuaries. From doing this, it should not be implied that we consider the data entirely adequate for such purposes. In the first place we do not have a sufficient number of stores upon which to base actuarial conclusions. Secondly, the period studied is only one decade, and we have no means of knowing the life of the stores which have existed for a period longer than this. Furthermore, we have no means of finding the age of stores which leave the business before they have been operating for one year. For instance, a store might open up directly after the canvassers for the directory have passed the location in June, 1927, and withdraw just previous to the canvass of 1928 and therefore never be listed in a directory, although it had existed for almost a year. Or a store may enter business the week previous to the call of the canvasser and close its doors a week later, in which case it would be listed as a one year store. From

the large number of stores which are listed for only one year in the directories, one would judge that the mortality of stores lasting less than one year, and entering and leaving the business between the counts is rather large. The study is confined to integral years and does not take in consideration smaller units of time.

II

THE MORTALITY OF GROCERY STORES

Between 1918 and 1927, 5,766 new firms entered the independent retail grocery business in the city of Buffalo. Over 83 percent of these firms had passed from the records by 1928. Sixty out of every hundred firms entering the business within this period were listed in only one year. These figures would tend to confirm the statement often made that retail grocery merchandising is one of the most hazardous of all businesses.

Table 1 shows, for each year of the period studied, the number of firms entering the business, the number leaving the business, and the total number engaged in business. The "Number of Entrances" indicates the firms in business each year which were not recorded the previous year. The "Number of Exits" represents the firms which were listed in the previous year but are not found in the specified year, and which are therefore presumed to have gone out of business within the year. Thus the total number of firms in any given year as shown in the last column equals the total of the previous year plus the number of entrances and less the number of exits in the given year.

TABLE 1. NUMBER OF ENTRANCES AND EXITS FROM THE RETAIL GROCERY BUSINESS, AND THE TOTAL NUMBER OF INDEPENDENT FIRMS RECORDED EACH YEAR FROM 1918 TO 1928, INCLUSIVE.

Year	Number of Entrances	Number of Exits	Total Number Recorded
1918	....	....	1459
1919	519	432	1546
1920	515	573	1488
1921	569	489	1568
1922	663	514	1717
1923	740	671	1786
1924	700	694	1792
1925	734	651	1875
1926	685	654	1906
1927	641	804	1743
1928	502	571	1674
Total	6268	6053	

It should be pointed out that the number of entrances each year includes those stores which in that year changed the name under which they operated, but which may have begun business in an earlier year under a different name. On the other hand, the number of exits does not take into account those firms which actually changed hands, but continued to operate under their old names. It may perhaps be assumed that these changes offset each other, and that the figures in the aggregate approximate the actual entrances and exits from the business. In compiling these figures, stores with more than one place of business have been excluded; only stores which appear to be wholly independent have been counted.

Fewer People Served Per Store

Considering first the total number of grocery stores recorded each year, we note that this number has increased every year with the exception of 1920, 1927 and 1928

The peak in the total number of stores was reached in 1926 with 1,906 stores. The rate of increase in the number of stores from year to year (together with curves showing the rates of increase for drug, hardware, and shoe stores), and the population curve for the city of Buffalo, are shown graphically in Chart 9 on page 55.

It is readily seen from a comparison of the grocery store curve and the population curve that the number of independent grocery stores increased much more rapidly than population until the year 1926, since which date the total number of stores has declined.

Number of Entrances Declines

Chart 1 shows graphically the entrances and exits from business as taken from the figures given in Table 1.

The entrances exceeded the exits in every year with the exception of 1920, 1927 and 1928, in each of which years there was a decrease of entrances compared with the year immediately preceding. It is obvious that the smaller number of stores found in these three years was due both to the relatively few entrances and to the relatively large number of exits. There is little evidence here to indicate that the number of persons leaving business has any great influence upon the number of newcomers in the same year or in the year following.

But if we compare the number of entrances in any given year with the exits of the succeeding year, we immediately notice a very close correlation. With the exception of the year 1926 every decrease in entrances presaged a decrease

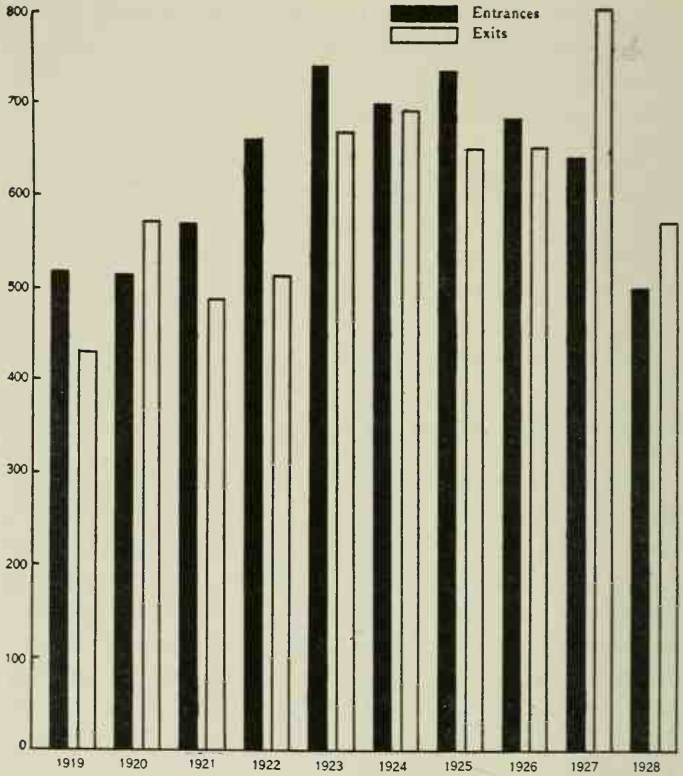

CHART 1. ENTRANCES AND EXITS IN THE GROCERY BUSINESS, 1919-1928.

in exits the following year, and every increase in entrances presaged an increase in exits the following year. This reflects the fact, mentioned above, that a large proportion of firms entering the grocery business goes out of business within a year.

The number of entrances increased from 519 in 1919 to 740 in 1923. Since the latter year the number of entrances has fallen off almost consistently until there were only 502 in 1928. On the other hand, the number of exits increased consistently throughout the period until 1927; the number in 1919 was 432, and in 1927, almost double that number.

A comparison of the hollow bars in Chart 1 clearly indicates the continual upward trend in exits; while the black bars in the same chart show that the course of entrances was upward until 1923, since which time it has been consistently downward. We may infer from this divergence of trends since 1923 that the field began to narrow down in that year.

Perhaps the cause of the decline in the number of entrants into the grocery business since 1923 was the general recognition of the fact that large numbers of chain stores were coming into the grocery business. This observation would naturally make prospective entrants hesitant about entering the business. Similar considerations may have led to some limitation of credit by wholesalers, particularly to new retail firms.

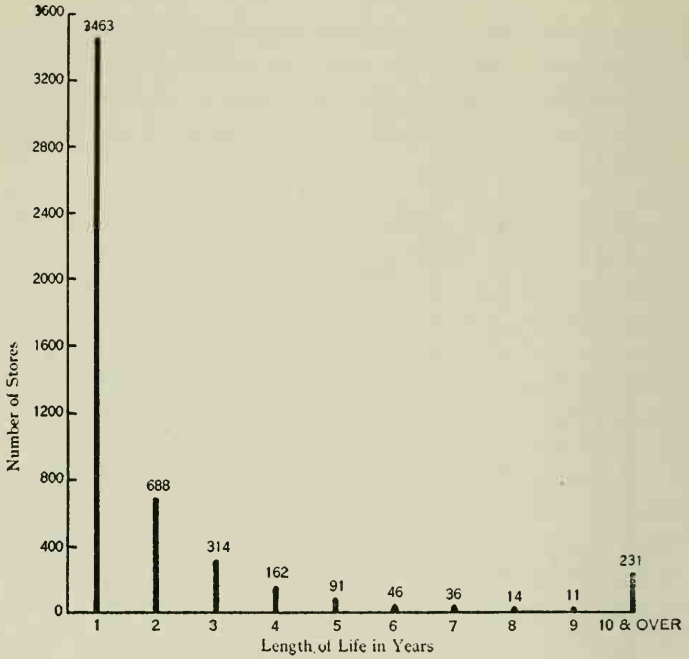

CHART 2. Frequency Distribution of the Lengths of Life of 5,056 Grocery Stores in Buffalo, 1918-1927.

High Mortality of New Firms

The most significant fact revealed in this investigation is the short life of firms in the grocery business. In 1918 there were 1,459 stores. Between that year and 1928, 6,268 new firms entered and 6,053 ceased to be listed. Chart 2 shows the length of life of those firms which entered and left the business within that period, together with the 231 firms which remained in business throughout

the entire period. Care should be used in interpreting this chart, as it is subject to two limitations. In the first place, it does not take into account those firms which were already listed in the year 1918 but were not listed in 1928; and secondly, it does not include those which have entered since 1918 but continue to be listed in 1928. In neither of these cases are definite data available as to the actual length of life. Nevertheless, the chart emphasizes the fact that an appalling number of firms enter and retire from business each year.

A more accurate estimate of the mortality rate of grocery firms may be had if we take the total number of stores entering the business each year and distribute them according to the number of years they remain in business. This is done in Table 2, which shows the total number of newcomers each year distributed on a percentage basis according to the number of years they continued to be listed.

The percentage of firms which were listed only one year ranged from 54.9 in 1921 to 67.8 in 1926. Although there seems to be a tendency for the percentage of firms of one year's life to increase, this tendency is not very consistent nor pronounced. Apparently in those years of entrance in which the mortality was relatively low for the one-year life firms, there was a relatively high mortality in the two-year life firms. For instance, only 54.9 percent of the entrances in 1921 passed out of existence the next year, but 16.7 percent passed out of existence the second year.

TABLE 2. NUMBER OF GROCERY STORE ENTRANCES EACH YEAR DISTRIBUTED ON A PERCENTAGE BASIS ACCORDING TO THEIR LENGTH OF LIFE.

Years of Entrance	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	Percentage continuing after
1919	61.1	14.3	6.2	5.0	2.3	1.9	1.3	.8	2.1	9 years: 5.0
1920	55.7	15.2	9.1	4.8	2.7	1.2	2.8	1.9		8 years: 6.6
1921	54.9	16.7	8.6	4.6	3.0	2.4	2.4			7 years: 7.4
1922	61.2	14.2	5.1	2.9	4.1	2.4				6 years: 10.1
1923	58.8	13.0	5.9	5.3	2.8					5 years: 14.2
1924	61.8	11.9	10.0	3.9						4 years: 12.4
1925	60.0	16.3	5.2							3 years: 18.5
1926	67.8	7.0								2 years: 25.2
1927	57.5									1 year: 42.5
1919—1927	60.3	11.9	5.4	2.8	1.5	.8	.6	.2	.2	Continuing after 1927: 16.3

The bottom row of Table 2 shows the total entrances for the entire period distributed upon a percentage basis according to their lengths of life. Of the total number of firms entering throughout the period, 60.3 percent failed to survive more than one year, and 72.2 percent failed to survive more than two years. Only 81.9 percent failed to survive more than five years. Similar details, for other specific lengths of life, may be obtained from the table.

"Life Expectancy"

If we seek a measure of the probable life of a new grocery store (one starting business under average conditions), we can obtain some light as to its chances of success by analyzing the lengths of life enjoyed by stores between 1918 and 1928. We have data as to the time of entering and leaving business only for those stores which started in 1919 or later, and either withdrew from the field during or before the year 1927, or still remain in business. Table 3 shows the percentages of such stores (which during this ten-year period had opportunities of surviving for periods of from one to ten years) which succeeded in remaining in business for either one year, two years, three years, four years, etc. It should be made clear that in this table the percentage for any particular length of life is based not upon the total number of stores involved for the entire period, but only upon those stores which, by virtue of the year in which they actually en-

tered business, really had a chance to survive for the number of years specified.*

TABLE 3. "LIFE EXPECTANCY." (SEE TEXT AND FOOTNOTE FOR EXPLANATION.)

	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.	9 yr.	10 yr.
Grocery	100%	40.0	26.2	19.3	15.1	12.7	10.2	7.9	6.9	5.0

Table 3 may be likened to an actuarial table of individual life expectancy, although it is perhaps not based upon sufficient data to justify this title in as literal a sense as does a life insurance table. If we regard these percentages as constituting a "life expectancy" table, it will be seen that the average grocery store listed in any year has about forty chances in a hundred of staying in business long enough to be listed a second year, and about seven chances in a hundred of being listed for as many as nine years. A comparison of the life expectancy for grocery, drug, hardware, and shoe stores is shown graphically in Chart 10, page 56.

* In computing the above percentages the numbers of firms which had opportunities of surviving for various numbers of years respectively are taken as denominators, and the numbers of firms which did survive for the various lengths of time in question are taken as the numerators. As an example of the method employed, take the computation for the 9 year length of life, for which the grocery store figure shown in Table 3 is 6.9 percent. In 1919, 519 new firms entered the grocery business; nine years later, or in 1927, 37 of these 519 firms were still in business. In 1920, 515 new firms entered the grocery business; nine years later, or in 1928, 34 of these were still listed. The entrants during these two years of the eleven year period being studied are the only stores included in our count which could have lasted for nine years. The total number of entrants for these two years is 519 firms plus 515 firms, or 1,034 firms. The number of these entrants which remained in business by 1927 or 1928 is 71, or 6.9 percent of 1,034.

TABLE 4. Percentage of grocery stores withdrawing from business each year.

Year	Percentage Withdrawing
1918	29.6
1919	37.0
1920	32.8
1921	32.8
1922	39.1
1923	38.8
1924	36.3
1925	34.9
1926	42.2
1927	32.8

Table 4 shows the turnover of firms in the grocery business, that is, the total number of firms going out of business each year stated as a percentage of the total number in business in that year. The range of this turnover is from 29.6 percent in 1918 to 42.2 percent in 1926. The chart indicates that although there are fluctuations in the turnover percentage from year to year, the tendency on the whole is for this percentage to increase. The average turnover for the entire period is about 36 percent; that is to say, about 36 percent of the grocery stores engaged in business leave the field each year.

Age of Stores Listed in 1928

Table 5 shows the distribution of the total number of grocery stores engaged in business in 1928, according to the number of years they have been listed in the directory. If we take the number of years listed to represent the age of the stores, we arrive at the significant conclusion that almost half of the stores in existence in 1928 were less than two years of age, and only about one in eight had been in business more than ten years.

TABLE 5. The distribution of grocery stores in business in 1928 according to the number of years listed in the directories.

Number of years listed	Number of stores
1	502
2	272
3	172
4	136
5	87
6	105
7	67
8	42
9	34
10	26
Over 10	231
Total	1674

In general we may assume that people quit a business because ill health or personal reasons require them to give it up, because they have earned sufficient money to retire, or because of failure. There is nothing in grocery merchandising which would lead us to believe that it is so detrimental to health or that it is so distasteful to the people engaged in it that large numbers would give it up for these reasons. Nor can we attribute the exit of any large number of firms to the fact that their owners have earned a competence sufficient for retirement, for the annual profits from a grocery business are generally small, and most of the firms studied left the business within two years. We must infer, therefore, that the vast majority of these exits from the grocery business are caused by failure — not always failure in the sense of bankruptcy, but failure to realize the profit expected.

Assuming that a large percentage of the firms which leave the grocery business are failures in this sense, the

high rate of exits within the first few years suggests that the chief reason for the mortality rate lies in the ease with which the business may be entered. It is often said that "anyone can enter the grocery business." No special skill is required to operate a grocery store, and there are no legal requirements such as are found in the drug business. Furthermore, there is no minimum limit as to the scale of operations or the amount of capital necessary. Apparently anyone who has a few dollars for current expenses may rent quarters, obtain merchandise on credit, and start in business.

This ease of entrance doubtless leads large numbers of people who lack either the capacity or the means to enter other businesses to try their hands in the grocery business. Needless to say, many of these persons are no better equipped to carry on the grocery business than any other type of business. Many of them soon find their small capitals dwindling, and decide to sell out to someone else — perhaps to someone as unfortunate as they, and this newcomer in turn loses part of his capital and sells to a third. Thus the endless procession continues, year after year.

III

THE MORTALITY OF DRUG STORES

In 1918 there were 164 independent retail drug stores in operation in the city of Buffalo. Ten years later, or in 1928, seventy-four of these stores, or 45.1 percent of the original number, were still in business. These figures are in sharp contrast with those upon the mortality of grocery stores. In the latter field, it was discovered that of the 1,459 stores listed in the city directory of 1918 only 231, or 15.9 percent, remained in business in 1928.

Table 6 shows, for each year of the period studied, the number of firms entering the drug business, the number leaving the business, and the total number engaged in the business. As in the study of the grocery trade, only those stores which appear to be wholly independent have been included, i. e., firms operating more than one establishment were excluded from the count.

Examining first the total number of drug stores listed in the city directories each year, we note that this number has increased every year throughout the period, with the exception of 1928. In 1928 there were 256 stores in operation as contrasted with 164 in 1918, a net increase of 56.1 percent. During this same period the total number of grocery stores increased only 14.7 percent. The greatest

TABLE 6. Number of entrances and exits from the retail drug business, and the total number of independent firms recorded each year from 1918 to 1928, inclusive.

Year	Number of Entrances	Number of Exits	Total Number Recorded
1918	..	..	164
1919	21	11	174
1920	32	26	180
1921	24	13	191
1922	50	27	214
1923	49	26	237
1924	42	28	251
1925	41	36	256
1926	33	30	259
1927	31	30	260
1928	46	50	256
Total	369	277	

net increase in drug stores came in the years 1922 and 1923. Since 1924 there have been slight increases in the total number of stores listed each year until 1928, when the total number was four less than the previous year.

The rate of growth in numbers of grocery, drug, hardware and shoe stores, together with the population curve for the city of Buffalo, is shown graphically in Chart 9, page 55. A comparison of the curves reveals that the number of drug stores has grown more rapidly than has the number of grocery stores, and that the numbers of both types of stores increased more rapidly than the population until 1926, when the number of grocery stores began to decline, and until 1927, when the number of drug stores decreased.

Two reasons may be suggested for the expansion in

the number of drug stores. First, the drug store has so greatly extended the range of its merchandise that it has become, in a restricted sense, a general store, and has thus assumed a somewhat larger place in the trading community. Secondly, the chain stores in Buffalo have not made such inroads upon the business of independent drug stores as they have upon the business of independent grocery stores.

Number of Exits Increases

The entrances and exits from the drug business, taken from the figures in Table 6, are shown graphically in Chart 3. The number of entrances exceeds the number of exits in every year throughout the period, with the exception of 1928. In the grocery study, a close correlation was noted between the number of entrances in any given year and the number of exits in the succeeding year. No such correlation appears as characteristic of the drug business. The reason for this is perhaps the much lower mortality rate among drug stores during the first year of life. There is no consistent evidence to show that a high rate of exits or an increasing number of exits in any given year has any influence upon the number of entrances in the succeeding year.

When we examine the number of entrances, as shown by the solid black bars of Chart 3, we note that there was a consistent increase each year from 1918 to 1922, with the exception of 1921. In 1923 the number of entrances was only one less than in 1922; but after that year there was a consistent decline in this figure throughout the period studied until 1928, when there was an influx of 46 new firms.

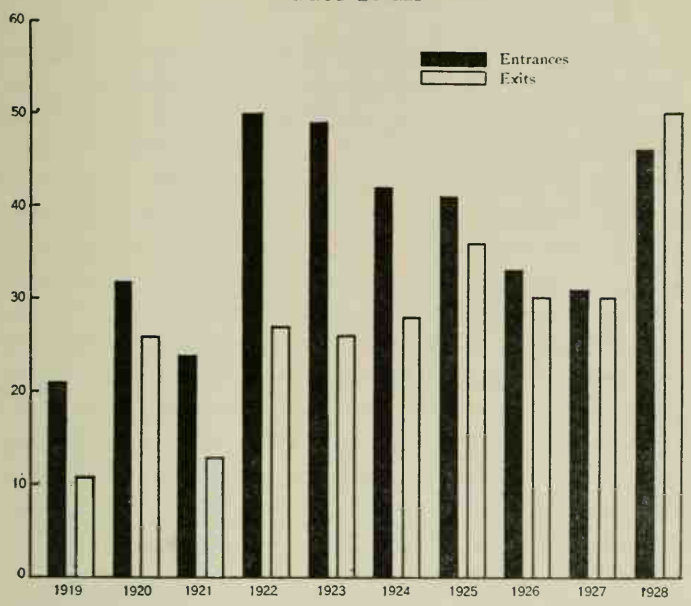

CHART 3. Entrances and Exits in Drug Business, 1919-1928.

The number of exits each year, as shown by the hollow bars of Chart 3, ranged from eleven in 1919 to fifty in 1928. Although in several of the years studied the number of exits was less than in the year immediately preceding, a consistent upward tendency may be observed throughout the period. For every year from 1919 to 1925, the number of exits was considerably less than the number of entrances. From 1925 to 1927 the margin between exits and entrances narrowed down till there was a difference of only one store. In 1928 the number of entrances for the first time was exceeded by the number of exits.

A comparison of Chart 3 with the similar chart for the grocery business, as shown on page 14, is significant. Although the proportion of stores entering and leaving the grocery business each year to the total number of stores engaged in business is much greater than the proportion of drug stores entering and leaving to their total number, yet the year-to-year fluctuations in entrances and exits are greater in the case of the drug stores. But in the trend of both entrances and exits there is marked similarity in the two series. The course of the entrances in both cases was upward until 1922-1923; since then it has been downward, the only exception being the larger number of drug stores which entered in 1928. The course of the exits in both cases is upward throughout the period, with the more consistent movement in the grocery business. In 1927 and 1928 the exits in the grocery business exceeded the entrances, and there resulted net declines in the total number of grocery stores. Likewise in 1928, the number of exits in the drug business exceeded the number of entrances by four, which decreased the number of drug stores as compared with the previous year.

Table 7 shows the total number of newcomers to the drug business during each year of the period 1919-1927, distributed upon a percentage basis according to the number of years they continue to be listed. The percentage of firms which were listed only one year varied from 18.2 in 1926 to 45.1 in 1927.* For no year of entrance is the

* This range, as here stated, ignores the abnormally low figure of 3.1% for the year 1920. The data for that year have been carefully checked, and no error can be detected. Doubtless the figure has no meaning as indicating the lower limit of any significant range. Rather, it is due in all probability to the small number of firms entering the drug business each year: in statistical terminology, the figures lack the stability of large numbers.

TABLE 7. NUMBER OF DRUG STORE ENTRANCES EACH YEAR DISTRIBUTED ON A PERCENTAGE BASIS ACCORDING TO THEIR LENGTH OF LIFE.

Years of Entrance	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	Percentage continuing after
1919	28.5	4.8	9.6	9.5	4.8	9.5	4.8	0.0	0.0	9 years: 28.5
1920	3.1	12.5	6.3	9.4	3.1	6.2	9.4	3.1		8 years: 46.9
1921	20.8	8.3	12.6	4.2	0.0	8.3	12.5			7 years: 33.3
1922	26.0	12.0	14.0	4.0	2.0	10.0				6 years: 32.0
1923	20.4	8.2	10.2	12.2	10.2					5 years: 38.8
1924	35.7	2.4	9.6	9.5						4 years: 42.8
1925	39.0	12.2	9.8							3 years: 39.0
1926	18.2	18.2								2 years: 63.6
1927	45.1									1 year: 54.9
1919—1927	26.6	9.0	8.3	5.6	2.5	3.4	2.2	.3	0.0	Continuing after 1927: 42.1

percentage of such one-year drug firms so high as the percentage of one-year grocery firms. On the other hand a much larger percentage of the firms entering the drug business each year is found to remain at the end of the period. A comparison of the drug store percentages for the entire period with grocery store percentages indicates that 26.6 percent of the drug stores cease business with only one listing, while 60.3 percent of the grocery stores retire after this one year of life. About 42.1 percent of the drug stores entering business during the period were still listed at the end of the period, while only 16.3 percent of the entering grocery stores lasted until the end of the period.

Relative Stability of Drug Trade

There were 164 drug stores in operation in 1918. Between that year and 1928, 369 new stores entered the business and 277 left the field. Chart 4 shows the length of life of those firms which entered and left the business during the period together with 74 firms which were listed in all the years studied.* This chart shows that by far the largest number of withdrawals from the drug trade occur during the first year of business. A comparison of this chart with the one for grocery stores is significant in showing the relatively larger number of drug stores which continued in business throughout the whole of the period studied. The number of drug stores which remained in

* As was stated in connection with a similar chart on page 16-17, care should be used in interpreting this chart, as it is subject to two limitations. In the first place, it does not take into account those firms which were already listed in the year 1918 but which were not listed in 1928; and secondly, it does not include those which have entered since 1918 but continue to be listed in 1928.

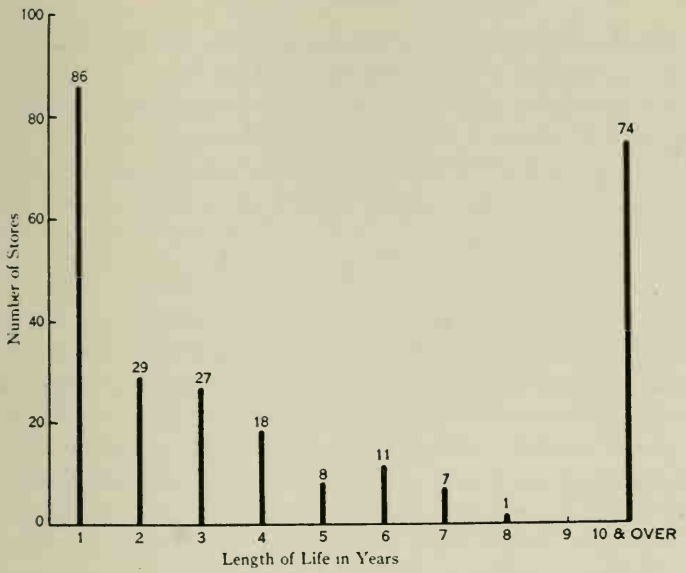

CHART 4. FREQUENCY DISTRIBUTION OF THE LENGTHS OF LIFE OF 261 DRUG STORES IN BUFFALO, 1918-1927.

business throughout the entire period was almost as large as the number which had a life of only one year, whereas in the case of the grocery stores, the number of stores which made their exits after only one year of operation was about fifteen times as great as the number which remained in business throughout the entire period.

The reason for this relative stability in the drug business as compared with the grocery business can probably be found in the character of the two trades. Although both drugs and groceries are convenience goods, a substantial part of a druggist's activity consists of professional

sional service. This professional phase must rest upon the confidence of the public, and such confidence ordinarily can be built up only over a period of time. Thus far more good-will attaches to a well established drug store than to a grocery store. In the latter, the patrons buy largely on a price basis; in the former, more upon a basis of quality and care in service.

"Life Expectancy"

Table 8 shows the "life expectancy" of drug stores and grocery stores. As stated in a previous section, the percentages given here consist of the proportion of the stores which actually succeeded in remaining in business for either one year, two years, three years, four years, etc., to those stores which, by virtue of the year in which they entered business, had a chance to survive for the number of years specified.

TABLE 8. "Life Expectancy"

	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs.
Grocery	100.0	40.0	26.2	19.3	15.1	12.7	10.2	7.9	6.9	5.0
Drug	100.0	73.4	65.4	55.2	50.0	47.1	41.7	38.9*	39.6*	28.6

* The figures given above for eight and nine year life expectancy are anomalous in that they show that the chance of a store's life being nine years is greater than its being eight years. This is due to the high mortality of firms entering in 1921 in their early years, and to the low mortality in their early years of those entering in 1920. Only small numbers of stores for these years could be counted; the figures therefore lack the "stability of large numbers."

It will be seen from the above table that the average drug store listed in any one year has about seventy-three chances in a hundred of staying in business long enough to be listed a second year. It has about twenty-eight chances in a hundred of being listed continuously for ten years.

This is in striking contrast with the life expectancy of grocery stores, in which only about forty of each hundred entering have a chance of staying in business long enough to be listed a second year, and about five in a hundred of being listed for ten years.

Turnover of Firms

Table 9 shows the turnover of firms in the drug business, that is, the total number of firms going out of business as a percentage of the total number engaged in business during that year. The range of this turnover was from 6.7 percent in 1918 to 19.2 percent in 1927. Although the percentages were comparatively low for 1918 and 1920, there appears no general tendency toward an increase of these percentages throughout the period. Comparing these figures with like percentages for grocery stores, we find the turnover of the latter ranged from 29.6 percent to 42.2 percent. The average turnover for grocery stores for the entire period was 35.9 percent, while the average turnover for drug stores amounts to 12.6 percent; that is to say that about thirteen in a hundred drug stores with-

TABLE 9. Percentage of drug stores withdrawing from business each year.

Year	Percentage Withdrawing
1918	6.7
1919	14.9
1920	7.2
1921	14.1
1922	12.1
1923	11.8
1924	14.3
1925	11.7
1926	11.6
1927	19.2

draw from business each year whereas about thirty-six in a hundred grocery stores do so.

Table 10 shows the distribution of the total number of drug stores operating in 1928 according to the number of years they have been listed in the directory. It is significant that of the 256 stores now in existence 74 or almost twenty-nine percent of the total have been in business for eleven years or longer.

TABLE 10. The distribution of drug stores in business in 1928 according to the number of years listed in the directories.

Number of years listed	Number of stores
1	46
2	17
3	21
4	16
5	18
6	19
7	16
8	8
9	15
10	6
Over 10	74
Total	256

In conclusion, a comparison between the mortality rates in drug stores and those in grocery stores shows the much greater stability and longer life of the drug stores. Several reasons may be suggested for this. To begin with, there is the legal requirement that every drug store must have a licensed pharmacist to fill prescriptions; this requirement eliminates large numbers of poorly-trained persons who might otherwise wish to set up in business. Then, a larger amount of good-will attaches to the drug than to the

grocery business because of its professional character; consequently a business once built up retains its customers for a longer period. Another contributing factor is that the expansion of the merchandise lines handled by drug stores has tended continuously to increase their business. Finally, it is probable that, as a rule, more initial capital is required to start a drug store than is needed to establish a grocery store.

IV

THE MORTALITY OF HARDWARE STORES

During the years 1918 to 1927 inclusive, 241 new independent retail hardware stores entered business in the city of Buffalo. Of these 241 stores, 83 establishments, or 34.4 percent of the total number, were listed in the city directory for one year only. During this same period, 60.3 percent of the entrants into the retail grocery business, and 26.6 percent of the entrants into the retail drug business were listed for only one year.

Table 11 shows, for each year, the number of firms entering the hardware business, the number leaving business and the total number engaged in business.

Considering first the total number of hardware stores, we note that the number of stores engaged in business for any one year ranged from 130 in 1922 to 162 in 1927. Although fluctuations in the number of stores in existence from year to year are evident, the general trend of this figure has been slightly upward throughout the period. Chart 9, on page 55, shows this increase, compared with the rates of increase in the number of grocery, drug and shoe stores and with the growth of population.

TABLE 11. NUMBER OF ENTRANCES AND EXITS FROM THE RETAIL HARDWARE BUSINESS, AND THE TOTAL NUMBER OF INDEPENDENT FIRMS RECORDED EACH YEAR FROM 1918 TO 1928, INCLUSIVE.

Year	Number of Entrances	Number of Exits	Total Number Recorded
1918	..	..	135
1919	23	25	133
1920	24	23	134
1921	26	19	141
1922	19	30	130
1923	41	21	150
1924	27	28	149
1925	23	17	155
1926	34	29	160
1927	24	22	162
1928	13	21	154
Total	254	235	

Entrances and Exits

Chart 5 shows the number of entrances into and exits from the hardware business for each year throughout the period. In the drug and grocery businesses, it was noted that the peaks of entrance came in 1922 and 1923 respectively. In the hardware business, the peak came in 1923, the number of incoming firms in that year being more than twice as many as in 1922. Although the trends are not so pronounced as in either the grocery or the drug business, a general tendency for the number of the entrants into the hardware business to increase until the peak is reached in 1923, and for the number to decline since then, may be observed.

The number of exits each year from the hardware business ranged from 17 in 1925 to 30 in 1922. No definite trend as to the course of exits here appears. On the

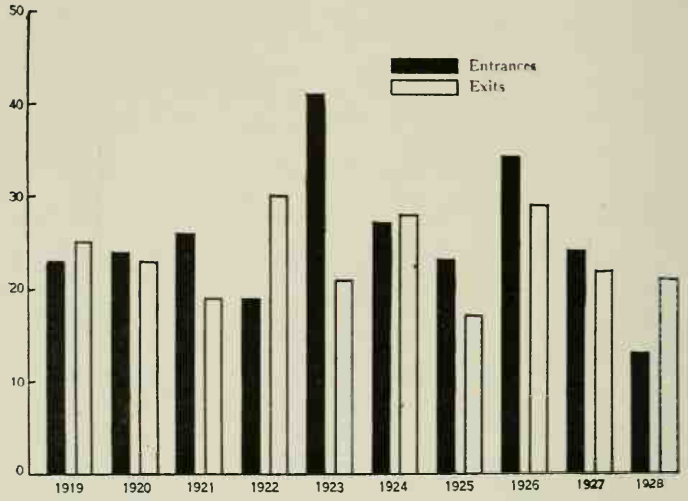

CHART 5. ENTRANCES AND EXITS IN THE HARDWARE BUSINESS, 1919-1928.

whole, the fluctuations from year to year are both large and erratic. In the case of grocery and drug stores, however, the trend of exits is upward.

Table 12 shows the number of entrances into the hardware business during each year of the period 1919 to 1927, distributed upon a percentage basis according to the number of years they continued to be listed. The percentage of incoming firms that was listed for only one year varied from 20.8 in 1920 to 52.2 in 1925. *For no year of entrance is the percentage of such one-year hardware firms as high as the percentage of one-year grocery*

TABLE 12. NUMBER OF HARDWARE STORE ENTRANCES EACH YEAR DISTRIBUTED ON A PERCENTAGE BASIS ACCORDING TO THEIR LENGTH OF LIFE.

Years of Entrance	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs,	9 yrs.	Percentage continuing after
1919	47.8	4.3	17.4	4.3	13.1	0.0	0.0	0.0	0.0	9 years: 13.1
1920	20.8	20.8	8.3	8.3	0.0	8.3	0.0	4.2		8 years: 29.3
1921	42.3	30.7	7.7	3.9	0.0	0.0	0.0			7 years: 15.4
1922	21.0	5.3	5.3	5.3	5.3	5.3				6 years: 52.5
1923	31.7	4.9	12.2	2.4						5 years: 48.8
1924	40.7	14.8	7.4	3.7						4 years: 33.4
1925	52.2	8.7	8.7							3 years: 30.4
1926	29.4	20.6								2 years: 50.0
1927	25.0									1 year: 75.0
1919—1927	34.5	12.3	7.5	2.9	1.7	1.2	0.0	.4	0.0	Continuing after 1927: 39.5

firms. But for every year of entrance, with the exception of the years 1922 and 1927, the percentage of such one-year hardware firms exceeded the percentage of one-year drug firms.

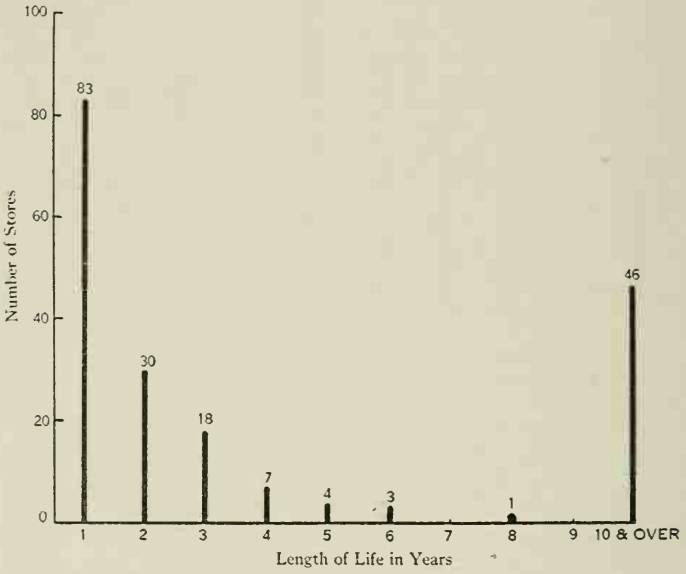

CHART 6. Frequency Distribution of the Lengths of Life of 192 Hardware Stores in Buffalo, 1918-1927.

There were 135 hardware stores engaged in business in 1918. Between that year and 1928, 254 new stores entered the field and 235 withdrew. The length of life of those firms which entered and left the business during the

period, together with 46 firms which continued in business throughout the period, is shown graphically in Chart 6. The number of stores which were engaged in business for only one year is about twice as large as the number which remained in business for ten years or longer.

Of the entire number of hardware stores entering business during the period, 39.5 percent were still listed in 1928. For the same period 42.1 percent of the drug, and only 16.3 percent of the grocery stores entering the field remained in business in 1928.

"Life Expectancy"

Table 13 shows the percentages of those hardware, drug, and grocery stores which during the period of ten years had opportunities of surviving for periods of from one to ten years and succeeded in remaining in business for either one year, two years, three years, etc.* Using this table of survivals for different years as an indication of the life expectancy of the different types of business, we secure a striking picture of the contrast in life probability. A comparison of the life expectancy for grocery, drug, hardware, and shoe stores is shown graphically in Chart

TABLE 13. "LIFE EXPECTANCY".

	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs.
Grocery	100.0	40.0	26.2	19.3	15.1	12.7	10.2	7.9	6.9	5.0
Drug	100.0	73.4	65.4	55.2	50.0	47.1	41.7	38.9†	39.6†	28.6
Hardware	100.0	65.5	50.7	41.0	38.1	36.1	27.2	20.5†	21.3†	13.0

† It should be noted that the figures for the nine-year life are slightly larger than those for the eight-year life in the hardware and drug businesses. This is due to the fact that only small numbers of these stores could be counted; the figures lack the "stability of large numbers."

* The method used in computing these percentages is described in detail in Chapter II, page 20.

10, on page 56. The highest life expectancy is found in the drug business in which 73.4 percent of the new firms listed in any one year are listed in a second year, and in which 50.0 percent remain in business five years. The lowest life expectancy is found in the grocery business in which only 40 percent of the new firms listed in any one year are listed a second year, and in which only 15.1 percent survive as long as five years. Between the relative longevity of drug stores and the short lives of the grocery stores lies the life expectancy of the hardware stores, of which 65.5 percent survived as long as two years and 38.1 percent as long as five years.

It is readily seen that the mortality in all three types of stores is highest during the first year and that the differences between the percentages is less between the second and third years than between the first and second years. In other words, the stores which have been listed for two years have a stronger chance of being listed for an additional year than those which have been listed only one year.

Turnover of Firms

The turnover of firms in the hardware business, i. e., the total number of firms withdrawing from business expressed as a percentage of the total number engaged in business during the year, is shown in Table 14. The range of this turnover was from 11.4 percent in 1924 to 21.2 percent in 1921. During the same period the turnover of grocery firms ranged from 29.6 percent in 1918 to 42.2 percent in 1926, and the turnover for drug firms ranged from 6.7 percent in 1918 to 19.2 percent in

1927. In the hardware business there appears a tendency for the turnover to decrease throughout the period, whereas in the grocery business and drug business there is a slight tendency toward an increase in turnover.

TABLE 14. PERCENTAGE OF HARDWARE STORES WITHDRAWING FROM BUSINESS EACH YEAR.

Year	Percentage Withdrawing
1918	18.5
1919	17.2
1920	14.2
1921	21.2
1922	16.2
1923	18.7
1924	11.4
1925	18.7
1926	13.7
1927	12.9

Table 15 shows the distribution of the total number of hardware stores according to the number of years they have been listed in the directory. Of the 154 hardware stores now in business, 46 or almost one-third have been in business over ten years.

TABLE 15. THE DISTRIBUTION OF HARDWARE STORES IN BUSINESS IN 1928 ACCORDING TO THE NUMBER OF YEARS LISTED IN THE DIRECTORIES.

Number of Years Listed	Number of Stores
1	13
2	18
3	17
4	7
5	9
6	20
7	10
8	4
9	7
10	3
Over 10	46
Total	154

Relative Difficulty on Entering Business

In previous chapters it was suggested that the chief reason for the high mortality in grocery stores lay in the ease with which the business could be entered, and the reason for the relatively low mortality in the drug business lay in the difficulty of entrance due in part to the legal requirement that every drug store must have a licensed pharmacist to fill prescriptions. The mortality of stores is somewhat lower in the hardware business than in the grocery business, but much higher than in the drug business. It may be suggested that the reason for this is the relative difficulty of entrance into the hardware business as compared with the grocery business. As the retail hardware business is characterized by relatively large inventories, of relatively slow moving goods,* we may assume that more capital is required to set up a business than is the case in the grocery field. Furthermore, in the hardware business a certain amount of technical knowledge, which can only be gained by actual experience, is obviously required of a hardware dealer. These factors tend to limit the number of people who are inclined to enter the hardware business to those who have considerable capital and who have had at least some experience.

* *Retail and Wholesale Trade of Eleven Cities*, based on a census of distribution by the United States Bureau of the Census shows the average inventory per grocery and delicatessen store as $1714, and per hardware store $8026; the average sales per grocery and delicatessen store as $23,389, and per hardware store $33,090.

V

THE MORTALITY OF SHOE STORES

In 1928 there were 258 retail shoe stores in Buffalo. Of these, 30 were local units of chains which operate in a number of cities, 49 were units of local chains, and 179 were independent retailers. In 1918 there were 242 shoe stores, including 13 national chain units, 34 local chain units and 195 independent retailers. For the period as a whole there was an increase of 131 percent in the number of national chain units, 44 percent in the number of local chain units, and a decrease of 8 percent in the independently operated stores. If we exclude the nationally operated chain stores, we find that there was one less store in 1928 than in 1918. In the following study only those stores which appear to be wholly independent, i. e., those for which only one address is given, are considered.*

The number of independent firms entering the shoe business, the number withdrawing from the business, and the total number engaged in business, for each year of the period, are shown in Table 16. The total number of stores recorded in any one year varied from 175 in 1925 to 214 in 1923. Chart 9, on page 55, shows the rate of change in the total number of stores from year to year compared with like rates of change for independent drug

* Any firm which operated more than one unit in any year is considered a chain throughout the period.

TABLE 16. NUMBER OF ENTRANCES AND EXITS FROM THE RETAIL SHOE BUSINESS, AND THE TOTAL NUMBER OF INDEPENDENT FIRMS RECORDED EACH YEAR FROM 1918 TO 1928 INCLUSIVE.

Year	Number of Entrances	Number of Exits	Total Number Recorded
1918	..	..	195
1919	38	37	196
1920	40	30	206
1921	25	47	184
1922	44	26	202
1923	65	53	214
1924	51	65	200
1925	31	56	175
1926	50	31	194
1927	45	39	200
1928	24	45	179
Total	413	429	

stores, grocery stores, and hardware stores, and with the population curve for the city of Buffalo. From 1918 to 1923 there appears to be a tendency for the total number of independent shoe stores to increase slightly, but since the latter year the number has declined. From the figures given above, we may attribute this decline in independent stores largely to their replacement by units representing national chains.

Entrances and Exits

The number of entrances into and exits from the shoe business, as given in Table 16, is shown graphically in Chart 7. Comparing the black bars of this chart, representing the number of firms entering the shoe business each year, with those of the similar charts for grocery,

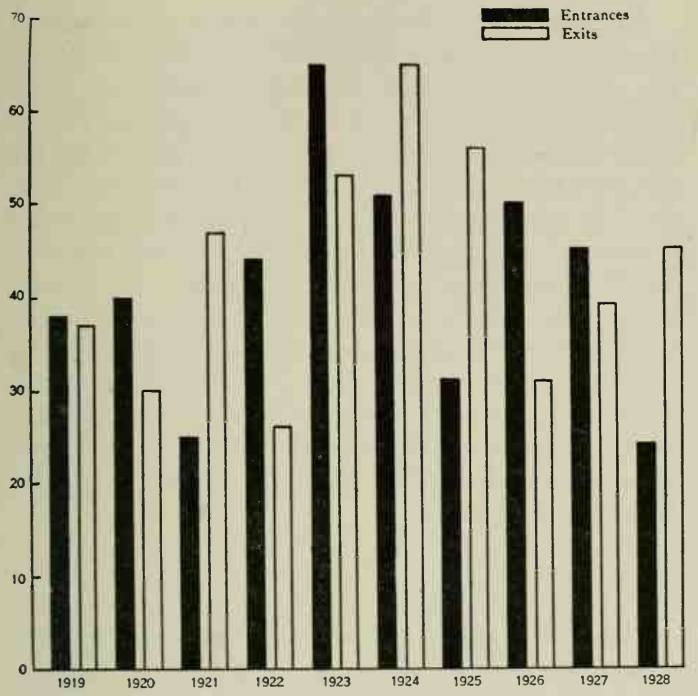

CHART 7. ENTRANCES AND EXITS IN THE SHOE BUSINESS, 1919-1928.

drug, and hardware stores, we find the same general tendency, viz., for the number of entrances to increase until about the middle of the period, from which point it declines. In the drug business the peak of these entrances came in 1922; in the grocery, hardware and shoe businesses, it came in 1923.

The number of exits as shown by the hollow bars in Chart 7 seems to follow roughly the trend of the entrances, reaching a peak in 1924, and then declining until 1926, since which date the number has been increasing. On the whole there were more exits in the latter half of the period than in the first half, indicating a slight general tendency of the number of exits to increase. It is interesting to note that the net difference between entrances and exits was 16 stores, which is just half the number of new chain stores. The number of exits from the grocery and drug business increased throughout this same period, but no definite trend of increase in exits could be found in the hardware business. There is no apparent correlation between the number of entrances in any year and the number of exits in that year or other years, such as was found in the grocery business.

Length of Life

The total number of newcomers to the shoe business during each year of the period from 1919 to 1927, distributed upon a percentage basis according to the number of years they continue to be listed is shown in Table 17. The percentage of firms which were listed for only one year varied from 29.0 in 1919 to 58.9 in 1924. In no year is the percentage of such one-year shoe firms as high as the percentage for grocery stores; but the figure is greater than that for drug stores in every year except 1925 and 1927. In three years, viz.: 1919, 1921, and 1925, the percentage of exits during the first year of life is less in the shoe business than in the hardware business, while in

TABLE 17. NUMBER OF SHOE STORE ENTRANCES EACH YEAR DISTRIBUTED ON A PERCENTAGE BASIS ACCORDING TO THEIR LENGTH OF LIFE.

Years of Entrance	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	Percentage continuing after
1919	29.0	15.8	10.5	7.9	13.2	2.6	0.0	0.0	0.0	9 years: 21.0
1920	50.0	10.0	10.0	10.0	0.0	0.0	0.0	0.0		8 years: 20.0
1921	32.0	16.0	12.0	8.0	4.0	12.0	8.0			7 years: 8.0
1922	50.0	15.9	11.4	2.3	2.3	0.0				6 years: 18.1
1923	43.0	9.2	10.8	6.2	4.6					5 years: 26.2
1924	58.9	9.8	7.8	5.9						4 years: 17.6
1925	38.7	12.9	12.9							3 years: 35.5
1926	42.0	22.0								2 years: 36.0
1927	42.2									1 year: 57.8
1919—1927	43.8	12.1	8.0	4.6	2.6	1.0	.5	0.0	0.0	Continuing after 1927: 27.4

the other six years it is greater. For the entire period 43.8 percent of the shoe stores, as compared with 60.3 percent of grocery stores, 26.6 percent of drug stores and 34.5 percent of hardware stores, cease business with only one listing. On the other hand, 27.4 percent of the shoe stores entering business during the period are still listed at the end of the period, while 16.3 percent of the entering grocery stores, 42.1 percent of the entering drug stores, and 39.5 percent of the entering hardware stores are listed at the end of the period. The comparison of these figures indicates that the mortality of shoe stores more nearly ap-

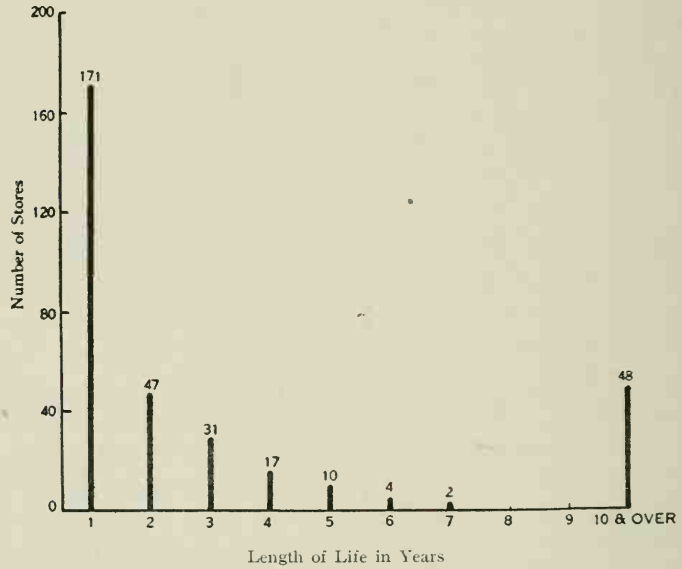

CHART 8. Frequency Distribution of the Lengths of Life of 330 Shoe Stores in Buffalo, 1918-1927.

proaches that of hardware stores than that of the other two types.

There were 195 independent shoe stores in operation in 1918. Between that year and 1928, 413 new stores came into the business and 429 left the field. Chart 8 shows the length of life of those firms which entered and left the business within that period, together with 48 stores which were listed in every year from 1918 to 1928 inclusive. It will be observed that the number of stores lasting throughout the period was almost one-third of the number lasting only one year, whereas the number of grocery stores which lasted throughout the period was only about one-fifteenth of the number which lasted only one year, and the number of drug stores which lasted throughout the period was almost as great as the number of one-year firms. There were about half as many hardware stores which lasted throughout the period as lasted only one year. Again we find a closer resemblance between hardware and shoes than between any other two groups.

"Life Expectancy"

The life expectancies of grocery, drug, hardware, and shoe stores are shown in Table 18. An inspection of this table reveals that on the basis of past experience, a shoe store has about 56 chances in a hundred of living as long as two years, as compared with 40 chances in a hundred for grocery stores, 73 chances for drug stores, and 65 chances for hardware stores. If we ignore the tenth year in the table, for which the basic data are rather meager, we find the highest life expectancy in drug stores, followed

in order by the hardware, shoe, and grocery stores. Of a hundred stores entering each of these businesses, we should expect to find remaining at the end of five years about 50 drug stores, 38 hardware stores, 25 shoe stores and only 15 grocery stores. As in the case of other types of stores, the two-year-old shoe stores have a greater probability of continuing in business for an additional year than the one-year-old stores.

TABLE 18. "Life Expectancy".

	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs.
Grocery	100	40.0	26.2	19.3	15.1	12.7	10.2	7.9	6.9	5.0
Drug	100	73.4	65.4	55.2	50.0	47.1	41.7	38.9	39.6*	28.6*
Hardware	100	65.5	50.7	41.0	38.1	36.1	27.2	20.5	21.3*	13.0*
Shoes	100	56.2	42.2	32.6	25.8	23.2	19.1	17.5	20.5*	21.1*

* Only a small number of stores is included in the count for these years; hence the instability of the figures given. See note on page 32.

Turnover of Firms

Table 19 shows the turnover of firms in the shoe business, that is, the total number of firms withdrawing from business each year as a percentage of the total number engaged in business during that year. The turnover percentage ranged from 14.1 in 1921 to 30.4 in 1923, a greater range than is found in any other of the four types of stores studied. It is apparent that the percentages of turnover for shoe stores tended to increase from 1918 to 1923, and since the latter date have tended to decline, however, for the period as a whole the tendency has been upward. The average turnover for shoe stores was 21.8 percent as compared with 35.9 percent for grocery stores, 16.2 percent for hardware stores, and 12.6 percent for drug stores.

Table 20 shows the distribution of the shoe stores listed in the 1928 directory according to the length of time they

TABLE 19. Percentage of shoe stores withdrawing from business each year.

Year	Percentage Withdrawing
1918	19.0
1919	15.3
1920	22.8
1921	14.1
1922	26.3
1923	30.4
1924	28.0
1925	17.7
1926	20.2
1927	22.5

TABLE 20. The distribution of shoe stores in business in 1928 according to the number of years listed in the directories.

Number of Years Listed	Number of Stores
1	24
2	26
3	18
4	11
5	9
6	17
7	8
8	2
9	8
10	8
Over 10	48
Total	179

have been in business. Of the 179 shoe stores in business in 1928, 48 or almost a third had been in business over ten years, and only half that number were new in the business that year.

VI

SUMMARY OF ANALYSIS

CHART 9 presents the total number of independent grocery, drug hardware and shoe stores in Buffalo, for the years 1918 to 1928, plotted upon a ratio scale to show accurately the rates of increase or decrease. For purposes of comparison, the population curve for the city of Buffalo is shown upon the same chart.

For the period as a whole there has been a distinct tendency for the number of drug, grocery and hardware stores to increase, and for the number of shoe stores to decline. The greatest rate of growth in the number of stores is found in the drug business, while somewhat slighter rates of increase are seen in groceries and hardware. However, all three types of stores, viz., grocery, hardware and drug, increase more rapidly than does population. There appears a general tendency for all three types of stores to increase during the first half of the period, after which there occurs a general flattening out of the curves, and finally an actual decline in numbers in the last year or two.

When we analyze the numbers of entrances over the period, we find they increase in all four types of stores until 1922 or 1923, and after that, decline. The trend of exits is upward throughout the period for grocery, drug and shoe stores. The decline of the curves near the end

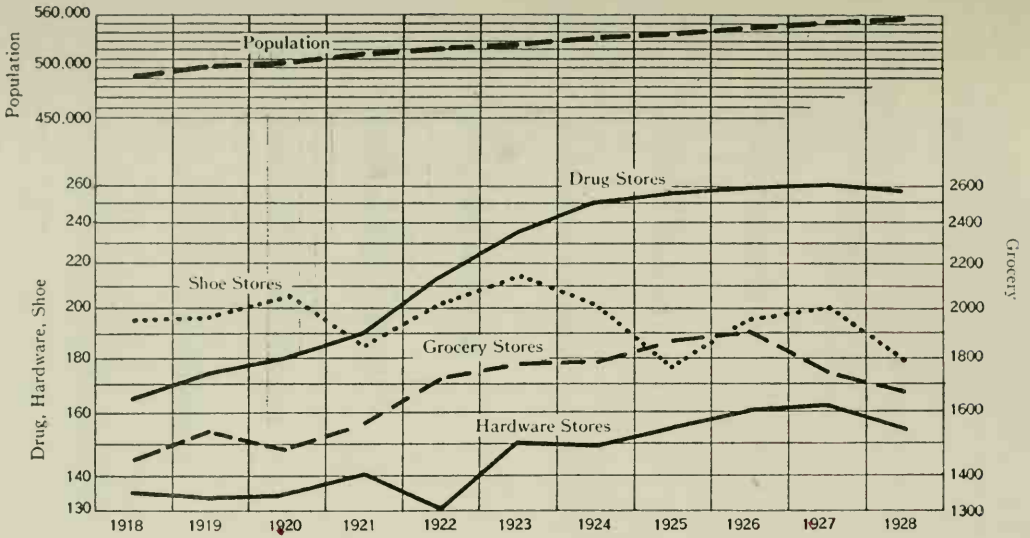

CHART 9. POPULATION OF BUFFALO COMPARED WITH THE NUMBER OF DRUG STORES, GROCERY STORES, HARDWARE STORES AND SHOE STORES IN BUFFALO, 1918-1928. (SEMI-LOGARITHMIC SCALES.)

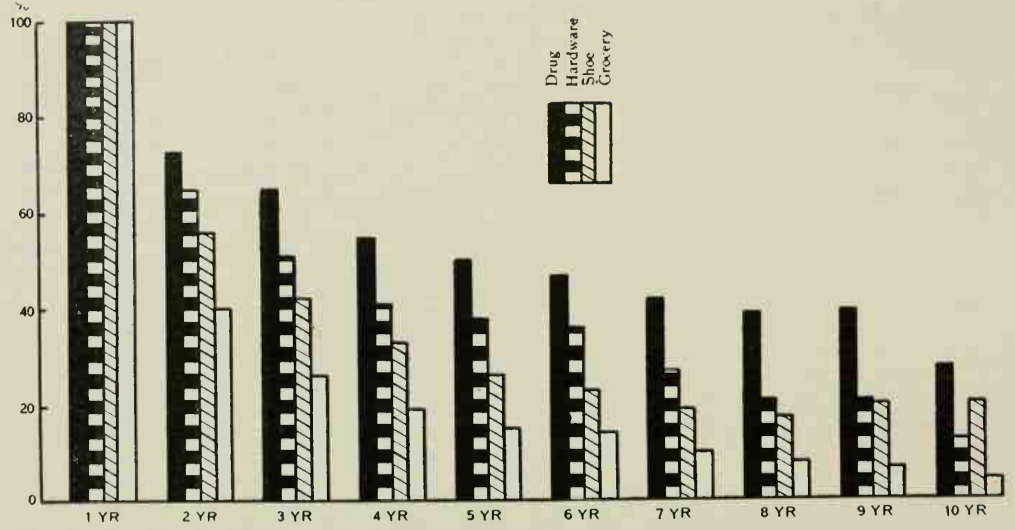

CHART 10. "LIFE EXPECTANCY" OF DRUG, HARDWARE, SHOE AND GROCERY STORES COMPARED.

of the period is obviously due to the fact that the downward curve of entrances crosses the upward curve of exits.

A comparison of the life expectancy for each year for grocery, drug, hardware and shoe stores is shown graphically in Chart 10. The data for this chart are taken from Table 18, on page 52. It should be noted that for every year of life the lowest expectancy is found in the grocery business, the highest is found in the drug business, and somewhere in between these two is found the life expectancy of shoe and hardware stores; of the two latter, hardware has the greater life expectancy.* In other words, the relation between the mortality rates for the different types of stores remains roughly the same throughout the period.

As has been previously remarked, it is evident that the first year in the life of any type of store is the most precarious; that is, the store which is listed for the first time has fewer chances of surviving for an additional year than has the one which has been listed two or more years. A definite idea of this change in the probability of life according to the age of the store may be computed. For instance, of the hundred stores entering the grocery business in any year, forty may be expected to be listed a second year. Twenty-six of these forty or about 65 percent will probably be listed a third year, and of this twenty-six about 19 or 73 percent will be listed a fourth year; and so on. Table 21 is computed in this way, so

* Except in the tenth year where the number of stores counted for these two groups is too small to be conclusive.

that the figures shown represent not the actual life expectancy but rather the change in life expectancy with each additional year's life: i. e., "additional-year-expectancy."*

TABLE 21. PROBABILITY OF A STORE'S REMAINING IN BUSINESS AN ADDITIONAL YEAR BEYOND ANY GIVEN AGE. (SEE TEXT FOR EXPLANATION.)

	Given Age						
	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.
Grocery	40.0	65.5	73.7	78.2	84.1	80.3	77.4
Drug	73.0	89.1	84.4	90.6	94.2	88.5	93.3
Hardware	65.5	77.4	80.9	92.9	94.7	75.3	75.4
Shoes	56.0	75.1	77.2	79.1	89.9	82.3	91.6

The increase in "additional-year-expectancy" between the first and second year is greater in the case of grocery stores than for any other type of store studied (from 40.0 to 65.5 percent). A number of causes suggest themselves for this change in "additional-life-expectancy" after the first year. Undoubtedly a store which survives over a year accumulates some good-will. In some cases, this good-will doubtless accumulates through a number of years, increasing the trade of the store from year to year; although our figures are not conclusive as to general tendencies in this respect. In any event, however, the accumulating experience of the management during the first year in business, if that year can be successfully weathered, tends greatly to increase the chances of survival.

* This table represents the probability of a store remaining in business for an additional year beyond any given age. Each figure is derived by computing a relative of the life expectancy figures, using the life expectancy of any given year as the numerator of the fraction, and the life expectancy figure for the preceding year as the denominator. The data of the table are limited to seven years, because, as was pointed out in the footnote on page 41, the figures for the eight, nine, and ten years lack the stability of large numbers.

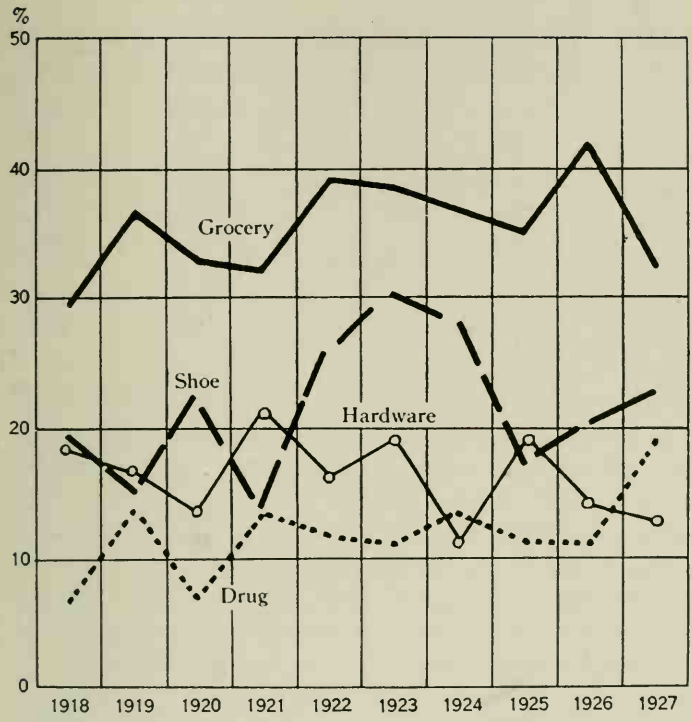

CHART 11. TURNOVER OF FIRMS IN GROCERY, DRUG, HARDWARE AND SHOE TRADES

Table 22 shows the turnover of firms in the grocery, drug, hardware and shoe businesses. As explained above, these figures consist of the total number of firms withdrawing from business each year stated as a percentage of the total number engaged in business in that year. These same data are shown graphically in Chart 11. The lowest

TABLE 22. Turnover of Grocery, Drug, Hardware and Shoe Firms. (Number withdrawing each year as a percentage of total stores engaged in business during the year.)

Year	Grocery	Drug	Hardware	Shoe
1918	29.6	6.7	18.5	19.0
1919	37.0	14.9	17.2	15.3
1920	32.8	7.2	14.2	22.8
1921	32.8	14.1	21.2	14.1
1922	39.1	12.1	16.2	26.3
1923	38.8	11.8	18.7	30.4
1924	36.3	14.3	11.4	28.0
1925	34.9	11.7	18.7	17.7
1926	42.2	11.6	13.7	20.2
1927	34.1	19.2	12.9	22.5

rate of turnover is found in the drug firms with an average for the period of 12.6 percent. The average turnover for the hardware stores was 16.2 percent; for shoe stores, 21.8 percent; and for grocery stores, 35.9 percent. For no year in the period studied is the rate of turnover for drug, hardware and shoe stores so high as that for grocery stores. For the period as a whole, a tendency appears for the rate of turnover to increase for grocery, shoe, and drug stores, and to decline for the hardware stores.

Table 23 shows the distribution of the grocery, drug, hardware, and shoe stores in business in 1928, on a percentage basis according to the number of years they have been listed in the city directory.

Of the total number of stores listed in each of these four trades, 13.8 percent of the grocery stores, 28.8 percent of the drug stores, 29.8 percent of the hardware stores, and 26.8 percent of the shoe stores have been listed for more than ten years.

The median age for grocery stores is about three years, while that of stores in each of the other three groups is about six years.

TABLE 23. DISTRIBUTION OF STORES IN BUSINESS IN 1928 UPON A PERCENTAGE BASIS ACCORDING TO THE NUMBER OF YEARS LISTED IN THE DIRECTORIES.

Years	Grocery	Drug	Hardware	Shoe
1	30.0	18.0	8.4	13.4
2	16.2	6.6	11.7	14.5
3	10.3	8.2	11.0	10.1
4	8.1	6.3	4.6	6.1
5	5.2	7.0	5.9	5.0
6	6.3	7.4	13.0	9.5
7	4.0	6.3	6.5	4.5
8	2.5	3.1	2.6	1.1
9	2.0	5.9	4.5	4.5
10	1.6	2.4	2.0	4.5
Over 10	13.8	28.8	29.8	26.8
Total	100.0	100.0	100.0	100.0

VII

REASONS FOR ENTRANCE

THE functions of a retail store and the principles under which it operates are, in general, the same regardless of the kind of goods it sells. Although there are wide differences in equipment, methods of operation, size, number of employees, and capital invested among the various types of retail firms, we may assume that the chief factors making for the success or failure of a store are common to all types.* The important differences are a matter of the degree to which these factors are applicable. If this assumption is correct, the high mortality of grocery stores would indicate that the general factors contributing to mortality are accentuated in this trade, and that in the main the same factors apply to other types of stores, though perhaps to a less extent. For this reason and also because the data are more adequate and more available in the grocery business than in the other three types studied, we shall confine our analysis in the following pages largely to the facts of this trade, applying our conclusions, however, to the retail business in general.

Our study of the lives of grocery stores in Buffalo has indicated that about 36 percent of those engaged in business leave the field each year. However, this is not so remarkable as the fact that, despite the high mortality

* Paul H. Nystrom, *Economics of Retailing* (Revised Edition) Volume II, pp. 3 and 6.

rate, at least as many firms enter the trade as leave it for most of the years studied. One would ordinarily think that the withdrawal of large numbers of proprietors from a business would tend to deter others from entering it. Why is it then that so many newcomers are willing to embark in a calling in which the chances of success are so small? In this chapter we shall attempt to discover the answer to this question by an analysis of the factors which cause people to enter the retail business.

Grocery Stores Offered for Sale

It may be assumed that two conditions are necessary to induce a person to undertake a business; one consists of the desire and ability to enter the business, and the other the opportunity which is offered for entrance. A large number of those entering the grocery trade do so by purchasing going stores rather than by opening establishments at new locations. An examination of the types of grocery stores offered for sale should throw some light upon the number and kind of opportunities which are available. Through the courtesy of one of the leading realty firms* in Buffalo which specialize in "business opportunities" we have been able to make an analysis of the stores listed for sale.

The agency from whose records these data were taken specializes in the better and more profitable class of stores, consequently the figures given are not entirely representative of the situation as a whole. Furthermore, relatively few stores are listed in the Polish or Italian sections of

* The writer is indebted to Mr. Charles S. Hunt of the Hunt Business Agency for this information.

the city, as people of these nationalities prefer to deal directly with one another rather than through an established agency. Unprofitable or very small stores are not listed, because the realty company's ten percent commission is not sufficient to cover the cost and effort necessary to sell them.

Of the 293 grocery stores listed for sale by the realty company only 61 were represented as selling groceries exclusively. Table 24 shows the number of stores handling groceries only, and groceries in combination with various other goods.

TABLE 24. Number of Grocery Stores Handling Various Types of Goods

Number of Stores	Types of Goods
61	Groceries (only)
38	Groceries and meats
90	Groceries and confections
12	Groceries and vegetables
18	Groceries and delicatessen items
17	Groceries, confections, and delicatessen items
12	Groceries, confections, and tobacco
5	Groceries, meats, and vegetables
5	Groceries, confections, and notions
4	Groceries, confections, and baked goods
4	Groceries, confections, tobacco, and delicatessen items
3	Groceries, confections, and papers
3	Groceries, confections, and soda
2	Groceries, confections, vegetables, and delicatessen items
2	Groceries, soda, and papers
17	Other classifications of one store each
293	Total

It is evident from the above analysis of grocery store listings that by far the greatest proportion of stores usually listed as "grocery" are in reality general stores

carrying groceries along with some other types of merchandise. The type most frequently found was the store selling shelf groceries and confections, or groceries, confections, and delicatessen items. These stores are in reality general convenience goods stores, rather than grocery stores. They are generally located outside the market centers and handle those goods which the neighborhood wants on short notice for immediate consumption, such as packaged groceries, candies, tobacco, and newspapers.* Such stores usually remain open until late at night and often on Sundays. They do not attempt to supply the neighborhood with all its food needs, but rather to sell a can of soup here and a package of cigarettes there, and thus build up a sufficient volume of trade to keep going. They may be called "fill-in" grocery stores as distinct from the "full-line" stores.

Of the 254 stores giving their volume of sales, 127 or just half sold less than $350 worth of goods per week, or $18,200 per year. Only 37 stores were listed as having sales of over $600 per week or as much as $31,200 per year. The weekly sales for the majority of stores ranged between $200 and $400.† Inasmuch as these stores are

* Several of the listings contained the notation that profits on the sales of newspapers alone covered the rent.

† Compare with the results of the Distribution Census in Eleven Cities:

Annual Sales	Percent of Grocery Stores	Percent of Drug Stores	Percent of Hardware Stores	Percent of Shoe Stores
Less than $ 5,000	27.42	8.15	19.85	26.64
$ 5,000 to 9,999	21.47	9.62	20.32	16.54
10,000 to 24,999	32.52	41.72	31.36	25.83
25,000 to 49,999	12.93	30.34	14.07	18.51
50,000 and over	5.66	10.17	14.40	12.48
Total	100.00	100.00	100.00	100.00

Adapted from *Retail and Wholesale Trade*, Chamber of Commerce of the United States, pp. 97, 88, 98, and 78.

listed with the owner's statement as to sales, and it is to his advantage to name as large a figure as possible, it is evident that the estimates are, if anything, larger than the actual amounts recorded by their cash registers.

An analysis of the sales for different types of stores shows that the average sales of stores handling groceries alone were $476 per week, while stores selling groceries and meats averaged $606 per week, and all others averaged only $327 per week. The most common sales figures for stores handling only groceries was from $350 to $450 per week, whereas the modal group for stores handling meats and groceries was from $450 to $550, and for all other grocery stores from $250 to $350. It is readily seen from these figures that the grocery-meat stores run higher in volume of business than any other type, and the stores doing the smallest volume of business are the general convenience goods shops, selling groceries, confectionery, delicatessen, and other items.*

Of the total 293 stores listed 168 were offered with living quarters, ranging from one to fourteen rooms. These figures indicate that a large proportion of these establishments are so-called "parlor-grocery stores," that is, the retail shops which have been opened in one room of a dwelling house. Of course these 168 stores include many which have a flat above them, the shop and flat being rented as a single unit. The rent asked for store buildings, including those with living accommodations, ranged from $15 to $160 per month, the most common figures being

* Compare with figures found in *Louisville Grocery Survey*, U. S. Department of Commerce, Distribution Cost Studies, No. 6, p. 5.

between $50 and $60. *More than half of the buildings rented at less than $60 a month.*

The prices at which stores were offered for sale likewise reflects the type and size of the stores, and perhaps in some instances their success. They ranged from less than $500 to about $11,000, the largest number falling in the group from $1250 to $1750. *More than half of the stores offered for sale were listed at less than $2750.* The average price for "full-line" grocery stores was $3090, for grocery and meat stores $3400, and for all others $2800. Some of these stores were offered at a sacrifice, for others the price was said to be based on the estimated inventory, and for still others the price evidently contained an element of good-will. The terms of sale were usually stated "25 or 50 percent down," the remainder to be paid over a period of time.

From the above facts we may draw by implication a fairly definite picture of the type of grocery store which is most frequently purchased by those entering the business. It is a small neighborhood "fill-in" store carrying chiefly shelf groceries, tobacco, confections and sometimes newspapers. Its sales are most commonly between $250 and $350 per week, with the greater number probably nearer $250. (The smallest stores are not included in the agency's figures.) With the store room are rented the living quarters at a total rental but little above what would be paid for the living quarters alone. To purchase the business, the newcomer must usually make a cash payment of from $500 to $1500, the assumption being that the remainder will be paid out of profits from the store.

Previous Occupations of Grocers Entering Business

The people who enter the grocery business come from all walks of life. The names of those entering the business in 1928 were checked back in the city directory of 1927 to determine what had been their previous occupations. These are listed in Table 25.

TABLE 25. Previous Occupations of Grocers Entering Business in 1928

Occupations giving no experience in merchandising	
Laborer	12
Painter	1
Engineer	1
Chauffeur	1
Moulder	4
Helper	3
Student	1
Countermaker	1
Drill hand	1
Mechanic	2
Machine Operator	1
Caretaker of old folks home	1
Plasterer	1
Conductor	1
Shoe repairer	1
Oiler	2
Milk deliverer	1
Machinist	2
Electrician	1
Auto livery	1
Pipe-fitter	1
Dressmaker	1
Widow	4
	45

Occupations giving experience in merchandising	
Meats	11
Confections	26
Clerks	2
Wholesale Grocers	5
Cigars	1
Real Estate	1
Soft Drinks	3
Delicatessen	3
Mgr. A. & P.	1
Mgr. Flickinger	1
Jeweler	1
Mgr. Thompsons	1
Contractor	1
Salesmen	2
Teas and Coffees	1
Tea Company	1
	61

It will be noted from the figures in Table 25 that of the 106 proprietors whose previous occupations were found in

the directories, 45 had been engaged in work which would in no way tend to give them training for the grocery trade, and 61 had been in previous occupations which might be expected to aid them in business. *In other words, approximately 42 percent of the new retailers had been in previous occupations which were not likely to give them any useful experience as retailers.** Furthermore, there is no indication that persons engaged in these occupations would likely be fitted by knowledge, temperament or training to undertake the responsibilities of managing a retail business. Rather there is every evidence to show that a large proportion of those who enter the grocery trade do so without a thought as to their fitness or capacity. Perhaps an analysis of the influences which cause people to enter business may show us why this is true.

Primary Motives for Entering the Retail Business

There are usually innumerable motives which lie back of the entrance of any person into a business.† It is probable that no two people are influenced by exactly the same combination of forces, present in the same proportions. In fact most people are actuated by a complexity of motives which even they themselves do not understand. Sometimes one and sometimes another happens to be in the foreground. Some are rational, others emotional. It is not, however, considered necessary in this chapter to dwell upon the psychological workings of the minds of

* Compare with figures given by Nystrom, of occupations of Oshkosh Merchants before going into their present business. *Economics of Retailing*, Vol. I, page 406. Also with *Some Aspects of Grocery Store Failures*, page 11.

† Compare *Credit Extension and Business Failures*, United States Department of Commerce, Trade Information Bulletin Number 627, p. 6.

the people who decide to start in business. Rather it is our purpose to point out and to classify the more obvious of these motives with a view to finding some clue to the turnover in business proprietorship.

An actual case will illustrate the difficulty of determining the motives which induce men to engage in retailing as proprietors. Mr. A, a traveling salesman for a men's clothing firm, had recently been married. After some time on the road he ran into a temporary slump in orders. At the same time his employers were exerting extra pressure upon him to secure more sales. "They did not know my difficulties, they merely read the sales figures." Upon his return home one week-end, a friend of his who had recently built a store building suggested that he start in the grocery business, and offered the first month's rent free. Mr. A's wife wanted him at home and argued that he would never accumulate any money so long as he was on the road. He had no money, but wholesale grocers were willing to let him have his goods on credit. The grocery business appealed to him because it was active work, "not just waiting for a customer or two a day," as would have been the case in the clothing business or the shoe business. He felt that with his energy and with the help of his wife he could make a living and accumulate something for the future. To do this he was willing to work harder than he had been doing. He gave up his traveling job and started a grocery store. In this case, as in most others, it is impossible to weigh the many factors which entered into Mr. A's decision. Taken all together and weighed against reasons in favor of retaining

the old job, they determined his action. This case is fairly typical of the explanations which were given by a number of retailers when asked to explain why they entered the business.

In general the motives which lead men to become individual proprietors may be divided into two classes which we shall call primary and selective.* The primary motives are those which impart to the individual the impulse to undertake some business for himself, such as the urge to become independent or the desire to invest accumulated capital. Selective motives are those which determine the specific business a man will undertake; for example, he may decide to enter the hardware business because of a liking for things mechanical. This classification does not mean that the primary motive always comes first in point of time. Often the first impulse is to enter a certain branch of business, and years later the problem of whether it is better to set up an independent establishment or to work for some one else is solved. Nor do we mean to imply that the two types of motives are separated in the individual's mind. In fact the entire motivating impulse is one of extreme complexity, in which it is probable that no two people react in the same way.

The chief incentive which induces men to become independent entrepreneurs is usually assumed by economists to be profit.† Undoubtedly few men would ever undertake

* These terms are adapted from M. T. Copeland, *Principles of Merchandising*, p. 160.

† Compare the groupings of motives here given with the discussion of "Wages and Profit in the Different Employment of Labor and Stock" by Adam Smith, *Wealth of Nations*, Book I, Chapter X. This comment is made: "The chance of gain is by every man more or less over-valued, and the chance of loss is by most men under-valued."

the proprietorship of a business if they thought there was no profit in it, if we consider profit as synonymous with net income. If on the other hand we think of profit as the excess which the independent store owner receives from the business, over and above what he might make as wages, and over and above the income which his investment might bring elsewhere, the profit incentive for entering business is greatly restricted.*

The persons who are induced to start into business for themselves on account of the profit motive may be divided into three classes. First, those ambitious people who desire to build up an establishment and through it to accumulate a larger and larger amount of capital, and become outstanding business men. It is probable that this idea is a hope of every man who enters business for himself, but often it is held in the background by the knowledge that few men ever succeed to such heights. Secondly, there are those people who feel that by starting a business they may earn a continuous income which is greater, all things considered, than they could earn otherwise. Thirdly, there are those people who already have an income either from wages or investments who wish to supplement this income by having an independent business on the side. Often it is felt that the head of the household may utilize his leisure time in management while the family carries on the routine work of the business. These three classes of people are all expecting incomes in varying degrees.

* None of the independent grocers interviewed considered as costs his own or his family's services. Profit usually meant gross margin to them, i. e. the difference between the price paid for goods and the price at which they were sold.

The second type of primary motive which induces people to enter business for themselves is also a matter of income. It is the urge to become independent of the job. The vicissitudes of the wage earner's job in modern industry are great—the tenure of employment uncertain. Large numbers of wage earners have constantly staring them in the face the possibility of being laid off, or fired from their positions.* When such employees have failed to accumulate a competence from their earnings, they are often reduced to dire poverty by a few weeks of unemployment. As an insurance against such possibilities which are all too familiar to them, large numbers see only one solution, that of entering a business where they can be independent. Thus, they reason, they can have a steady income, uninterrupted by the whims or exigencies of employers. Sometimes this desire for independence is not so much a matter of choice as of necessity. Such was the case of Mr. B, who lost his job as a traveling dry-goods salesman. As he was over fifty years old, no one wanted to employ him. He, therefore, opened up a store in his neighborhood as a grocer. The urge to become independent business men undoubtedly affects great numbers of wage and salary earners, but many of them are prevented from acting upon it because of their inability to secure the little initial capital which is required.†

A third motive, usually coupled with the urge to be

* A representative of the New York Industrial Commission in Buffalo states that many of the men requesting compensation for injuries ask that the amount be paid in lump sum so that they may open stores.

† Real estate agents tell us that the demand for stores is much greater in times of unemployment. This is not indicated by our mortality or entrance figures. Perhaps those who already own stores are more reluctant to give them up at such time.

independent, which leads many to undertake a business enterprise, comes from the opportunity to invest savings.* The rank and file of workmen have little knowledge of the modern facilities for investment. They are suspicious and fearful that their hard-earned savings will be lost if placed in the keeping of others. Usually they accumulate these surplus earnings in a savings bank until sufficient funds are available to embark upon a business of their own. Often also wage-earners and people in the lower walks of life fall heir to small amounts of capital. If these amounts are secured in a lump sum, it immediately turns the head of its recipient towards starting a business.

A fourth motive for entering business for one's self is found in the desire for less arduous employment. Workmen, either on account of physical disabilities or mere laziness, often feel that they can earn a livelihood with much less effort by operating a retail store. They observe many men in small businesses who are not working strenuously, and at the same time are apparently earning a living at an occupation which anyone could fill. They seldom realize that it requires labor and effort to manage a business, and they have little conception of the care and responsibility necessary to run a business successfully under modern competitive conditions.

A fifth motive for entering business is the inheritance of a going concern. Usually those who inherit a business have some experience in running it. It becomes more feas-

* *Credit Extension and Business Failures*, p. 6, shows that 46.1 percent of the organization capital of 25 grocery stores which were on the verge of bankruptcy was supplied by the owners without borrowing.

ible to continue the going business than to sell out. For instance a boy grows up in his father's store, he knows little else, and simply drifts into the business upon the death of the father. Often also the widow of a merchant undertakes to continue his work upon the death of her husband.

A sixth motive is the social pressure which is exerted in some communities.* A man who has worked as a day-laborer wants to show his neighbors that he is getting ahead. It adds to the social prestige of his family, if he can become a business man. This motive is probably more prevalent among the more recently arrived immigrants who have come to this country to seek their fortunes than among the older American families. Many of the former obviously come from families of tradesmen in southern Europe. They settle here with a definite idea of working until they have saved enough to open a store. Their families and their friends look upon a job as a workman as lower in the social scale than that of a business man.

Selective Motives, Determining the Specific Trade which a Retailer Will Enter

If one decides that he should start into business for himself, a second problem arises. What trade shall he undertake? We have grouped the motives which determine the solution of this problem under the heading selective. If all businesses were equally easy to enter, if none required more financing, more ability or special fitness

* "We have been told by individuals that it means much more to them to be grocers than to be engaged in some other occupations which seem to them to carry less social standing." *Credit Extension and Business Failures*, p. 6.

than any other, and all required equally arduous work, it is probable that people would tend to enter those trades which promised the greatest net profit. Assuming that the possibility of profits from various kinds of enterprise were known, that business which promised the greatest net gain would draw large numbers of people into it. Finally competition among these people would cause a reduction of profits to a point where they would be equal to those in other undertakings. Thus, considering the risks involved, profits of all types of business would tend to become equal.*

But businesses are not equally easy to enter; some require special fitness, some require more capital than others. Furthermore, the amounts of net profit which a business will return cannot be foretold, nor are the average profits of those already in business generally known. Taking all these factors into consideration it is probable that the anticipated net profit does not exert as great an influence upon the would-be entrant into the independent retail business as what might be termed the conditioning influences. *The problem becomes not so much "In what business can I make the greatest profit?" but rather "What business can I enter and make some profit?"*

For the wage-earner or the salary-earner the uncertain profits of a business which he may own must always be weighed against the certainty or uncertainty of the job, and the attractiveness of the work. Mr. C was technically trained in a German high-school. He came to America to

* Adam Smith, *Wealth of Nations,* Book I, Chapter X. "The whole of the advantages and disadvantages of the different employments of labor and stock must in the same neighborhood, be either perfectly equal or continually tending to equality."

seek his fortune and became a bricklayer. He worked for twenty years at his trade at "big wages," but half the time he was idle. Weather conditions, slumps in building activity, contractors' difficulties, and a general oversupply of bricklayers cut down the number of working days to the minimum. He decided to take his accumulation of $800 and open a grocery store in Buffalo. He says, "The work is not as healthy as outdoor work, and I have to be here every working day in the year, but I can do better here, if I make only half as much per day as I did at bricklaying. It was the only opportunity which I know about, in which I could make a living for myself."

In seeking a business which they may enter, large numbers of men today find relatively few possibilities. Formerly a man with little capital and little experience might start almost any kind of business for himself. He might start a foundry, a small factory, a blacksmith shop, a harness shop or a bakery. But in a modern urban center all these types of small business are anachronisms and even those which remain are being overrun by the onward march of big business. There are practically no openings for the small business man except in the retail trade, and even in this the lines which he may enter are constantly being restricted.* One cannot now become a druggist without several years of preparation. It is becoming increasingly difficult for the independent business man with small capital to start in the dry goods, variety, and even the shoe business due to the demand for a large variety of stocks and for certain new services.†

* There are some exceptions to this statement. For instance, the service station, the taxi and small trucking business, and bootlegging still seem fairly easy of entrance by individuals.

† The effect of this demand will be discussed in a later chapter.

A second motive for entering a specific business is the particular liking for that kind of work. This liking may come from experience in the work itself or from other contacts with it. Certain nationalities seem predisposed toward certain types of trade; for instance, the Greeks are particularly numerous in restaurants, the Italians in fruit stores. Often a man has a bent for mechanics which leads him into the hardware, electrical or service station business. This tendency can only be explained by a liking or preference for a particular trade.

Another motive which leads people into a specific business is the ability to employ the entire family in an earning capacity. This is perhaps most frequently seen in the examples of people who open grocery stores, in order to give the mother and children an opportunity to add to the family income. A man may have children whose schooling is likely to be limited, unless some additional income can be secured. The mother and children can find no satisfactory employment elsewhere, so a store is purchased to "help out." Usually the type of store is restricted to lines which may be sold with little effort, such as delicatessen, confectionery, newspapers, or groceries. Often the fact that groceries may be bought at wholesale prices and used in the home is a significant factor in influencing families to go into the grocery trade.

A large number of people who start in business simply drift into it. In answer to the question, "How did you happen to start a grocery business?" a lady who had had no experience replied, "Well, I had to do something, didn't I?" A young man who had graduated in pharmacy and

wanted to open up a drug store said that he did not care to be a doctor or a lawyer, but his parents wanted him to go to college, so pharmacy was the only practical career he could think of. Often a vacant store at low rent or the offer of a going store at a bargain is the factor which determines what line of trade a person will enter. As such bargains are more numerous in grocery stores, this is one of the factors which lead more people into this trade than into others.

Still another factor which has great influence in determining what business one will enter is the relative immobility of the would-be retailer. He chooses the business which he can carry on close at home.* This restricts his choice to a few types of stores selling convenience goods, such as drugs, general groceries, delicatessen, tobacco, and confectionery. As drug store ownership is limited largely to those who are registered pharmacists the tendency is for prospective merchants to open the other types of stores. Closely allied with this motive to be near home is the fact that frequently living quarters may be included with the store at a very low rental. If a man finds that by taking over a grocery store he can secure cheap living quarters, supply his family with food at wholesale prices, give them employment with at least some remuneration, and at the same time continue to live in his home community where he can count upon the patronage of friends, the factors in favor of opening a store seem to leave him no other alternative.

From the above discussion it is seen that the motives

* This is evident in the large number of "parlor" grocery stores.

for entering the retail business are many and complex, varying from person to person and from situation to situation. *However, from the maze of these influences one impelling force appears to be ever-present, the desire for security—the urge to be independent of the "job". On the other hand, conspicuously absent from the motivating factors is any thought of fitness for the new undertaking, or any thought of need for the services to be performed.* A large proportion of the people entering the retail trades has no business background; they are totally lacking in knowledge, forethought or judgment which would lead them to consider carefully the experience of others. *As a natural consequence of these conditions, there is a tendency for a large number of people to enter those trades in which there are fewest limitations, regardless of the probability of success or failure.* To enter the retail grocery trade little capital is required, there are no legal restrictions, no knowledge of merchandise or of methods is necessary, the rents are low and the store may be located in the beginner's home. The result is that great numbers crowd into this business.

VIII

REASONS FOR WITHDRAWAL

The people withdrawing from the proprietorship of retail business may be divided into two general classes. The first class includes those who have entered the business and achieved a measure of success, and on account of this decide to withdraw. The second class consists of those persons who withdraw because they have failed to attain the objective which prompted them to enter the business. Within these two classes, broadly speaking, is included the entire range of success and failure, from those who become wealthy and retire to those who are sold out by their creditors.

Withdrawals of Successful Proprietors

Among the first class are those fortunate people who enter the business with high ambitions and successfully attain them within a few years. They are willing to devote their entire initiative and energy to the business to make it go. They have sufficient capital, which they apply in effective ways to make a profit. Such men would probably be successful in any type of business. The fact that some of them are moderately successful even today as proprietors of small stores is an indication that, in spite of the intense competition, opportunities still exist here for those who are capable.

Often the very success of this type of retailer leads directly to his withdrawal from business. If he is more than usually successful, it is not long before he finds the restrictions of a small business impose too definite a limit to his success. The neighborhood grocery store, for instance, is often unable to expand its business beyond the requirements of the community it serves. The proprietor finds it necessary either to extend his trading territory by means of credit and delivery service, or to open a store in another neighborhood.*

Even the retailer whose business is so situated that he can expand it to keep pace with his growing resources and managerial ability often finds it necessary to incorporate the business, or otherwise change its name. He may go into partnership with some one else in order to secure more funds, or he may merge his resources with those of some other successful retailer. This often happens in the case of a successful grocery dealer who enters a partnership with a butcher. In any of these cases, the retailer loses his identity and the store changes its proprietorship.

The retailer who is young and has made rapid strides toward success is usually in demand for other positions which offer him strong inducements to give up his work as an independent dealer and become a salaried manager for some other organization. Many chain stores follow the policy of selecting their store managers from among

* A number of grocers told the writer that when their sales reached a certain amount, which they regarded as a maximum for the district, they intended to open branches.

the more successful independent retailers.* The chain store systems frequently are able to offer a regular salary equal to the earnings of the individual as an independent retailer, yet they require of him far less responsibility. Even those men who have been drawn into the independent business by the desire for independence are often induced by attractive offers in other positions to withdraw from it.

Another constant incentive for successful merchants to withdraw from the retail business is found in the fact that they can sell their business at a good profit. Real estate agencies which specialize in "business opportunities" make a practice of constantly combing the city for going concerns which they can list for sale. These agencies are especially interested in those stores which are successful or which have promising sites. They can often find purchasers willing to pay handsome prices for successful establishments. Almost any retailer will list his business at a price. If a buyer can be found who is willing to pay this price the retailer will sell out, and withdraw from business. Very often he will open up a store at a new site in a few weeks.† Sometimes chain store companies are willing to pay a price in excess of the inventory

* An investigation made by The H. H. Lestico Publishing Company and reported in the Journal of Commerce, June 15, 1929 shows that of 1000 chain grocery store managers who answered questionnaires, 136 had owned an independent store, and 532 had worked for an independent grocer, previous to their employment by the chain organization.

† It is understood that there have been men in Buffalo who even make a business of opening up stores for the purpose of selling them. The usual method is to open a store and make a good showing of sales by using cut prices and then to sell out before they have to compute their profits for the year.

There are also realty companies which make a practice of "glooming" a newcomer in the retail business so as to discourage his further efforts. Thus they are able to secure new stores for sale. Needless to say, both practices are frowned upon by the more reputable business men of the community.

value for a store; however, as a rule, the policy of chains is to rent a building, and install its own fixtures and stock.

As stated in the previous chapter, many retailers enter the business rather late in life. In general these men find it more difficult to adjust themselves to a new situation than the younger men, and they seldom have the energy and ambition, even when other conditions are propitious, to make a rapid success. If these men are successful in increasing their capital they may find it desirable to dispose of their stores, invest the proceeds and retire with sufficient income to assure them a comfortable old age. Usually these men have fewer dependents than younger men, and require less income.

Withdrawal of Unsuccessful Proprietors

On the whole the people who retire from business after achieving success are relatively few compared with the number who withdraw after a failure to attain their objectives. Among those of the second class there are two types, the number of which may be estimated with some degree of accuracy. These are the withdrawals due to death, and those due to bankruptcy.

For men between the ages of 25 and 65, which may be taken as the normal age limits for retailers, the death rate is about 30 per thousand each year. Inasmuch as these figures are an average for all men in the city, including those employed in the most hazardous occupations, it is probable that the death rate for retailers is somewhat lower. In any event it is probable that the number of changes in proprietorship due to death is not greater than

three percent. Some stores probably retain the name of the former proprietor after his death, but as such stores must eventually change, this factor would tend to delay the process but not invalidate the figures.

Those firms which go through bankruptcy proceedings may be found in the court records. Between 1918 and 1927 inclusive, these records show 119 failures among merchants handling groceries, meats or fish, 46 boot and shoe merchants, and less than thirty drug and hardware merchants.* It is apparent from these figures that the number of stores which go through bankruptcy is negligible compared with the total numbers which withdraw from business each year.

The vast majority of retailers who withdraw from business is evidently composed of those who have failed to make the income they expected from their undertaking. As their assets are small, their creditors do not find it practicable to undertake bankruptcy proceedings against them. These retailers enter the business with great hopes and small capital, and become discouraged when they find their capital dwindling and their hopes unrealized. Many of them accept their losses, sell out for what they can get, pull up stakes, and try some other occupation.† Many others, either from ignorance of their condition, from inability to change to another occupation, or because of

* See *University of Buffalo Statistical Survey.* (Study of failures, as reported by R. G. Dun and Company, made by the present writer) February 1928.

† In the listings of stores for sale by the realty agency mentioned in Chapter VII it was found that 36 of the 160 who stated the length of time they had been in business had been established less than six months. Several had become discouraged and tried to sell their stores before they had opened them for business.

actual dishonesty, continue running their business as long as possible, and, when finally they are forced to close up, leave a train of losses to everyone who has granted them credit.

Numerous attempts have been made to analyze the causes of mercantile failures.* Usually such analyses try to classify the failures recorded under such headings as incompetence, lack of capital, dishonesty, inexperience, over-extension of credit, etc. Informative as such figures may be to the credit man, they throw little light upon our problem. If we consider the terms broadly all failures may be said to be due either to incompetence or ill luck.

Incompetence includes all those personal factors which tend to make a man incapable of managing a business successfully. It may be due to a low degree of intelligence, lack of knowledge, inadequate training, laziness, or loss of health. *Such incompetence, in the form of lack of foresight or mistaken ideas, is usually one of the very reasons why large numbers of ill-equipped persons enter the retail business*; in other words, if they were intelligent, and had a sufficient knowledge of the hazards involved, they would not undertake a calling in which they were doomed to failure.

Incompetence in a narrower sense results in merchandising inefficiency, over-extension of credit, financial mismanagement, or inability to meet the changing economic and social conditions of the community. In other words,

* For an interesting analysis of this kind see, "Why Men Don't Pay," by O. W. Mayer, *System*, February, 1914, p. 120.

these retailers fail because they are not capable of performing the essential services of a merchant. The incompetence of a merchant generally reveals itself in all phases of business. If his delivery service, say, is not reliable, it may almost be taken for granted that his credit policy is lax, that his accounting is poor, and that he knows little or nothing about other aspects of his business.

It is difficult to distinguish those failures due to ill luck from those due to incompetence, for bad luck tends to destroy the business of the incompetent more quickly than that of the competent. However, there are some factors which cause failure which even the most capable cannot foresee nor forestall. For instance, a merchant may be very successful in a neighborhood store; when a strike or a lock-out occurs, his customers lose their earning power, are unable to pay, and the merchant fails.

That ill-luck is not an insignificant factor in causing the retirement of many proprietors from the grocery business is evidenced by the analysis of the various reasons given for quitting, by those who wish to sell their stores. Of the 160 grocery stores listed for sale by the realty agency mentioned above, fifty gave their reasons for placing their business upon the market. Although sometimes such reasons are given as a "blind" to cover up a declining business, most of them are probably all too true. Thirteen of the fifty "would-be" exits were caused by sickness, not necessarily sickness of the proprietor himself, but at least sickness in his family. Such answers as these are typical. "Wife ill, must leave this climate," "Husband in hospital, must sell at once," "Husband having operation,"

"Owner ill and old, must sell." What tragedies must be wrapped up in these simple phrases! Perhaps the meager savings of years have been hopefully invested as part payment for the store. Then follows thrifty living to pay off the debt and reach independence. Finally illness shatters the dream, and the store for which they have labored long must be sacrificed to maintain life itself.

But sickness is not the only ill-luck that befalls these owners. One woman wants to sell because "her husband has divorced her." Another finds it "too hard on account of the baby." Two owners, one of whom has been in business only a week, must sell because they "cannot speak English." Still another "lacks the money to run the store." And another who has just opened his store "must leave for Europe." The stores of two partnerships must be sold as the partnerships are dissolved, one because the "other partner left town," the other because of "a disagreement." A woman who has been in business only three months and whose volume amounts to about $200 a week finds it "too much for her."

Altogether about half of the reasons given for wishing to withdraw may be classified as ill-luck. The other half range all the way from a simple change of mind, as in the case of the owner who had been in business six months and decided he "doesn't care for store work," to the man whose "father died leaving a large estate to be managed." Five owners stated simply that they "wish to retire." Seven others have decided to enter other business. Of these one "wants to open a lunch room," another "wants to open a meat shop," a third "has gone into the insurance

business," and two others expect to start farming. Opportunities found in other cities have induced eight others to offer their stores for sale. In two of these cases the wives have been running the store and wish to leave to join their husbands, one of whom is a "plasterer at $20 a day in Brooklyn." One owner "must go to Baltimore," another is "going to Connecticut." In all of these cases we may attribute the quitting of the grocery business to the finding of better opportunities in some other line of work or in some other city.

The motives which lead men to withdraw from business are often just as complex as those which lead them to enter it, and sometimes the same factors are found in both. Mr. K had held a job as a handy-man with a commission merchant for seventeen years. The commission man sold his business, and the new owner immediately dispensed with the services of Mr. K. With the help of friends, Mr. K opened a grocery store near his home. He soon found he was not making as much money as he did in his old job, but he had a large family so he reasoned that he was better off than if he were doing nothing at all. A few months later he was offered a job as ice man with the railroad company at a better wage than he had received formerly. He accepted the job, and shortly afterwards sold his business at a considerable profit over what he had paid for it.

The above case is typical of many in that the motives are complicated. Mr. K entered the store business, not on account of the profit motive in the business sense, but because he was driven into it as a last resort. He failed

in the sense of making a profit from the going business, but gained considerable capital through the sale of the business itself. The business had acted as a fill-in job while he waited for something better. Such anomalies cause one to wonder whether a small store is a commercial enterprise, a job, or a commodity developed for resale.

Characteristics of Stores which Continue in Business

From the above discussion of the causes for exits from business we have shown that in general both the successful and the unsuccessful merchants tend to withdraw. However, it must not be assumed that the retailer who does not make the earnings which he expected always withdraws from business. Under the accepted theory of the competitive system the unsuccessful business man is automatically eliminated. If the profits and losses of the small retailer were calculated in the same way as those for a corporation, then the working of this economic law would be inevitable. Those stores which continually showed a loss when all the costs, including the cost of labor, of rent, and of invested capital, had been deducted from the gross margin, would inevitably use up their own capital and cease to function.

But when the labor which is used would be otherwise unemployed, when the store space is that for which rent must be paid whether used for this purpose or not, and when most of the capital is furnished by wholesalers, how can profit and losses be figured other than by taking the difference between the price of the goods purchased and the price at which they are sold? Under these circum-

stances labor does not become a cost until an alternative employment is offered; rent does not become a cost until the store space can be used in some other way; and interest on capital invested in inventories does not become a cost so long as these inventories are supplied on credit by wholesalers. Thus it happens that the man who enters the retail business is likely to remain in it as long as there is a margin between the purchase price and the sales price of his goods, or until a better alternative employment offers itself for his labor and store space. The result of this situation is that *those men who are able to secure employment in other occupations tend to leave the retail business as soon as their income from that business appears less than they could make in the other occupations, but those who can find no such employment tend to remain in the retail business indefinitely.*

That the explanation given above applies to a large group of retail merchants in Buffalo was substantiated by visits* and interviews with 102 retail grocers whose names had been continuously listed in the city directories for a period of eleven years. Of these 102 grocers, information could be secured from only 78. The remaining 24, whose stores were mostly of the small "hole-in-the-wall" variety, were suspicious and unwilling or unable to talk intelligently about their business. Many of them appeared to feel that the information was wanted for prohibition agents.†

* These visits were made by the members of the writer's class in Statistics at the University of Buffalo in 1929. The class was composed of the following senior students: Herbert Schwartz, Norman Burns, Perry Eldridge and Walter Stroman.

† It is interesting to note here that in 1888 there were 870 grocery stores listed in the city directory. Of these 344 or 40 percent were listed as "grocery stores and saloons."

Sixty-seven of the proprietors questioned gave their nationality as follows:

German	28
Polish	12
Italian	18
American	8
Irish	1
Total	67

The significant fact about this table is the small number of native Americans who have remained in the grocery business throughout this period. Most of those listed are probably naturalized citizens. The 24 retailers who could not be interviewed were chiefly Polish and Italian. The merchants of these nationalities who have remained in business throughout the period are located principally in Polish and Italian sections.*

Fifty of the proprietors answered the question, "What was your previous occupation?" Exactly half had done other things prior to entering the grocery business. The detailed distribution of the replies are as follows:

Always a grocer	25	A. & P. Manager	1
Housewife	3	Harness maker	1
Laborer	3	Boiler maker	1
Grocery clerk	2	Baker's wagon boy	1
Railroader	2	Butcher	1
Miner	2	Fruit peddler	1
Electrician	1	Junk peddler	1
Bookkeeper	1	Carpenter	1
Painter	1	Clerical worker	1
Brewer	1		

* The change in the nationalities of the proprietors of grocery stores is strikingly indicated by the names listed in the city directories. In the 1888 directory there were listed 32 names beginning with "Mc" or "O." In 1928 there were only 6 such names. In 1888 there were 12 names listed ending with "-ski," while in 1928 there were 204 with this ending. In Buffalo, these changes reflect, in part, changing trends in population as well as changing trends in the grocery business as such.

If we assume that the grocery clerks, the bookkeeper, the Atlantic and Pacific store manager and the fruit peddler all had experience which would be valuable in the grocery business, we find that 60 percent had had such experience. In discussing the entrants into the grocery business in 1928* we showed that approximately 58 percent of these had been in occupations which were likely to give useful experience for their new vocation. We may conclude that the type of experience which one has had in his previous occupation has little to do with the length of time he will remain in the grocery business.†

Of the seventy proprietors who gave the trend of their business during the last five years, 17 stated that their business had increased, 10 that their business had remained about the same and 43 that their business had declined. If these figures represent the general situation, and there is no reason to assume otherwise, then *57 percent of the grocers have continued operating their stores, in spite of a decline in sales over a five year period.*

Fifteen of those who had had an increase in business gave the following reasons for this increase;

6 were located in a growing neighborhood
4 had joined voluntary chains††

* Chapter VII, page 68-69.

† Compare with *Credit Extension and Business Failures*, p. 2. "The facts gathered (in Louisville) seemed to show that inexperience was relatively not an important causal factor (for failures); they indicate rather that merchants failed to profit by the experience which they had." See also *Some Aspects of Grocery-Store Failures*, p. 12.

†† The leading voluntary chains in Buffalo are: The Red and White Stores The Arrowhead Stores, The I. G. A. Stores, and the Clover Farms Stores. The units of these chains, though independent in their ownership, usually enter a contract with a wholesaler, who provides advertising and some store supervision in return for a promise to purchase a certain proportion of supplies from him.

1 had installed a telephone and delivery service
1 had added meats to his grocery line
1 because there were fewer stores in the neighborhood
2 because there were no chain stores in the neighborhood

In other words, 6 stores claimed that the reason for their success was due to changing population, 6 others to changes in methods of operation, and 3 to lack of competition.

Twenty-five of those whose business was declining gave reasons for the decline as follows:

12 Chain store competition
6 Competition
6 Decreasing population of the neighborhood
1 People of the neighborhood out of work

Apparently merchants who find their business declining always look for the reason in outside factors, rather than in any deficiency of their own.

Sixty-four of the merchants answered the question as to how much credit they granted. Of these

19 granted no credit whatsoever
12 occasionally granted credit
13 granted credit on a weekly or monthly basis
10 granted unlimited credit
10 granted credit but had no policy regarding it

These answers would indicate that more than half of the stores which have remained in business over the eleven year period do a credit business. A large percentage of these, however, have no definite policies as to whom credit shall be given, or when it must be liquidated. An Italian grocer smiled when asked the question and answered, "I give credit till I go broke."

The students who visited these retailers were asked to give their impression of the size, type and appearance of each store. Twenty-eight of the stores were small, thirty-seven medium-sized and fifteen large.* Sixty-nine of the store buildings appeared old, and five new. Fifty-four were well lighted. Fifteen of the stores had glass fronts, and fifty-six had the old type of small windows.

From the above analysis of grocery stores which have remained in operation for eleven years or longer, *it is evident that competition, such as there is, does not eliminate the unfit, at least with any great rapidity.* Poorly operated, poorly paying stores remain in business for ten, twelve or twenty year periods. In fact it would seem that many of the retail grocery stores are still as they always have been, half-way stations to the poor-house, and many of those who remain in the business do so simply because they are incapable of doing anything else.

We may conclude from the facts presented here that the small independent retail business offers little opportunity for the man who is unusually capable, except as a stepping stone to something else. At the same time this type of business offers many chances for failure to the highly incompetent, as is evidenced by the losses of wholesalers and creditors. Due to the fact that some income is secured even by those who are moderately unsuccessful, many of these tend to remain in business indefinitely. Thus at any given time we may find engaged in the

* Store rooms occupying less than 500 square feet were considered small, those occupying between 500 and 1200 square feet were considered medium, and those of over 1200 square feet were called large.

independent retail business, a fairly permanent body, consisting of a few moderately successful men and a great number of moderately unsuccessful men, men who are incapable of securing better employment, but still capable of avoiding actual failure in business, together with a large body of floaters who enter the business chiefly to avoid unemployment and leave it as soon as they realize that their earnings are less than they could make elsewhere.

IX

EFFECT OF ECONOMIC CHANGES

In the preceding chapter we have discussed chiefly the personal factors which tend to cause proprietors to remain in or withdraw from business. In addition to these factors, and of an importance difficult to measure, are those broad movements which pervade our entire economic system and affect every part of it. In a paper of this scope it is impossible to treat all these movements in detail and trace their influence to the subject of our discussion. However, there are certain phases of them which appear to have a direct bearing upon the survival of retail stores, without the treatment of which the discussion would be incomplete.

Two great movements during the last decade have been apparent to all observers of economic changes. One is the tendency toward larger and larger scale production attended by its corollary, large scale distribution. The other is the rising standard of living with its increasing demand for consumers' goods. In a sense these two are the same movement toward more economical production, which, resulting in lower prices, enables consumers to buy more products than formerly, even if their incomes remain the same. That they are interdependent is obvious. But the first consists of the pressure of production upon the buying and consuming power of the population, the second consists of wants to be filled, together with purchasing

power to fill them. The two movements converge in the retail store, which is the point of contact between the productive system and the consumer. One phase of the effect of large scale production has already been treated—that is, the tendency for more and more people to become wage earners with the resulting dependence upon the job, and the gradual elimination of opportunities for independent business.

The Movement towards Large Scale Distribution

The market upon which production of consumers' goods depends has been developed chiefly through advertising. In order to advertise effectively the goods must be standardized and identified. Furthermore, in those types of goods of small unit value which require repeat sales in order to secure volume, it is necessary to have the product sold in a large number of outlets. People will not ordinarily purchase goods of this character if they have to go out of their way to get them; hence in order to secure the volume of sales which his advertising has stimulated, the manufacturer must develop intensive as well as extensive distribution. The ideal of 100 percent distribution has become a fetish among manufacturers of branded convenience goods. It is argued that unless the goods may be found in every store which can carry them, some prospective customers will be lost. For this reason wholesalers are chosen to distribute the goods on the basis of the number of retail accounts which they handle. Specialty salesmen are employed to check up on the wholesalers, and to stimulate the buying of retailers, and in some cases where manufacturers cannot then secure the desired vol-

ume of sales, an attempt is made to sell the goods direct to the retailers. This constant pressure on the part of the manufacturer to secure more intensive distribution forces wholesalers and distributors to compete constantly for the business of new retailers and to nurse along those who are likely to quit.

Closely associated with the efforts on the part of the manufacturers to force intensive distribution of their products is their attempt to set a resale price upon their merchandise. Although many manufacturers of branded goods are willing to discriminate between purchasers by giving quantity discounts, they realize that the standardization of the retail price for their product would enhance the effectiveness of their advertising. If such standard retail prices could be maintained, manufacturers could use a price appeal in addition to the quality appeal, and customers would not only find the goods in every available outlet but they would find the prices always the same. If this practice were carried out and extended to all goods, the result would obviously be the elimination of all retail price competition on branded products. A discussion of the controversial features of price maintenance is irrelevant to our subject, but it should be pointed out that the tendency of placing goods in a retail store to be sold at a customary price narrows the personal importance of the retailer as an economic factor in the community. The effect of this tendency will be seen if we consider it from the point of view of the consumer.

Prices at which goods are offered for sale have always been of supreme importance as an appeal to purchasers.

However, people in this country have become "price conscious," in the sense that they can compare known qualities with known prices, only within the last few decades. Previous to this, the qualities of most types of goods were not standardized; the consumers therefore had to judge the value of an article as compared with their fluctuating quality standards. Such advertising as was done was either general in its reference to prices or general in its reference to quality. Under these conditions consumers had to depend largely upon the recommendations of their retailers as to the quality and price of the goods which they purchased. The business of the individual retailer was built up at least in part on the confidence which people had in his ability to select the goods which suited them. Personal good-will was therefore at a premium. However, with the increasing use of advertised branded products, people have tended to rely less and less upon the ability of the retailer to know his goods, and have placed their dependence rather in brand names. In selecting stores with which to deal, customers now appear to place more emphasis upon the brands carried, convenience of purchase, and price, and less upon the character and reputation of the retailer.

Another change which has in part been brought about by the necessities of advertising is the packaging of goods by manufacturers. The source of many types of goods can be fixed in the consumer's mind only through the use of distinctive packages by the manufacturer or wholesaler. Formerly customers asked for a pound and a half of sugar or two ounces of pepper, whereupon the retailer

weighed out the desired amount and placed it in a container. The assumption of the packaging function by the manufacturer or wholesaler economizes the labor involved, gives the consumer a more convenient and sanitary unit for handling, and saves his time in making purchases. Starting with the packaging of goods in integral units of measure, this function has so developed that the size and shape of packages now are based largely upon convenient consuming units. Consequently the customer today usually asks for a package of a certain brand of sugar or a package of a certain brand of pepper. This shift in the performance of the function of packaging relieves the retailer of the responsibility of correct weighing and the sanitary handling of his goods. It tends further to make the consumer rely upon the manufacturer or wholesaler for these services. This is particularly significant in that formerly a retailer's reputation was based largely on his honesty in weighing and measuring.

The Rising Standard of Living

The second economic change which has had a significant influence upon consumer buying habits, and through them upon the survival of retail stores, is the rising standard of living. It is obvious that increased purchasing power in the hands of consumers has enabled a constantly growing number of them to indulge in habits formerly confined to the wealthy. Among these habits may be noted the increased purchasing of luxury items, the exercise of individual preference between articles having but little difference, and the purchasing of numerous items for the

mere sake of variety. The willingness of consumers to try any item which is new or unusual has brought to the retailer's shelves many products about which he knows practically nothing, such as irradiated breakfast foods or decaffeined coffee. The demand for individual preference will often cause consumers to choose between a red container and a white one, even though they know the two contain identical goods. Not only do different consumers prefer different items, but the same consumer may often desire a variety of items. Whereas formerly a family confined its breakfast cereal to oatmeal, today it must have several patented breakfast foods on the table every morning.

This demand for luxury items, for articles suited to individual preferences, and for variety, causes consumers to visit those stores which carry the items which they desire, i. e., they shop around for items usually considered convenience goods. It also causes them to do a greater part of their purchasing in stores which carry a large variety, usually the larger stores. At the same time they can afford to experiment with goods which they may not like, hence they have an opportunity to judge for themselves what they want rather than having to ask the retailer what is best for their purposes. The broadening demand for variety makes it necessary for the retailer either to stock his shelves with a large number of different items to hold his regular customers, or else stock a limited variety of items and rely upon transient shoppers for his trade.

The rising standard of living has another effect upon

buying habits, in that it has given a new value to time. Whether this is due to the need for more time to enable them to earn additional income, as in the case of women in industry, or to the expanding means for the enjoyment of leisure, such as attending the cinema, card-parties, motoring, or listening to a radio, it cannot be doubted that there is a growing number of people who consider their minutes valuable. This premium on time makes customers impatient of waiting for service; what they want they want quickly. They have not time to talk to the retailer about the weather or even about the products he sells. They often come to a grocery store with a list of items wanted, specifying brands, size of packages, and even the prices, hoping to secure these items and get out of the store as quickly as possible. In order to save time many of them secure a large proportion of their products on Saturday afternoon, using the family car to go to the nearest market center.

All of the tendencies mentioned above, viz., the increasing demand for branded products, for goods at a known price, for packaged goods, for variety, and for expeditious service, may be summarized as a demand for impersonal rather than personal service.* Through these tendencies the retailer, particularly the retailer of convenience goods, is becoming less influential in determining what customers will buy. Consumers are placing more and more emphasis upon cleanliness, orderliness, and convenience of purchase, rather than upon the personality and integrity of the

* That this movement is not confined to buying habits is shown by Ernest Hugh Shideler in his unpublished dissertation: *The Chain Store: A Study of the Ecological Organization of a Modern City*. University of Chicago, 1927.

merchants and their salesmen. The allegiance to particular retailers is thus being broken down, and in its stead there is being built up an allegiance to particular products.*

Although the economic factors enumerated above doubtless affect the buying habits of all classes of people, it appears that the greatest change has taken place in the middle and upper income groups, and among the older families rather than among the more recently arrived immigrants.

Perhaps no one single factor has been so conspicuous in its influence upon retailing as the growth of installment buying for items of high valuation. The fact that through this method many people of the middle and lower income groups are enabled to purchase radios, automobiles, electrical appliances, musical instruments, etc., has given a new trend to household economics. As the income of these people consists chiefly of regular wages or salaries, they pledge a fixed portion of it for capital expenditures† each month, and pay for the smaller convenience items in cash. In other words, from the salary check must first come the installments due upon these high-value items, then what is left may be spent for groceries, drugs, shoes, etc., as these are needed.

In former times it was necessary for the wage or salary earner to accumulate a surplus in order to purchase capital items. When his wages were received, he first paid

* Compare Paul Mazur. *American Prosperity*, Chapter XII, entitled, "The Battle for Consumer's Loyalty."

† "Capital Expenditures" is here used in the accounting sense, meaning expenditures for items of high value which last over a relatively long period of time.

the grocery bill; with what was left he purchased such little luxuries as he saw fit, often leaving some as surplus to spend for the larger items when sufficient amounts were accumulated. It is possible that installment buying has caused the customer to be influenced by a price appeal on current purchases of convenience goods. Doubtless this has been one of the factors which has influenced the change from a credit and delivery system to a cash and carry system in the grocery business. It has also contributed to the emphasis placed upon price and convenience in modern merchandising of convenience goods, and through this, has been a factor in breaking down the allegiance of customers to particular retailers. Under these new conditions the grocery merchant trained in the old methods of credit and delivery merchandising finds it extremely difficult to hold his regular customers.*

Analysis of Grocery Buying Habits in Buffalo

Substantiation of this analysis and an idea of the extent to which the grocery buying habits of middle-class families have changed may be had from a study of questionnaires filled out by 552 housewives.† Table 26 shows the number of stores ordinarily patronized by housewives of middle-class families in purchasing dry groceries. The table is divided to show the number who make the largest amount

* One of the retailers interviewed said, "I used to have a hundred regular customers on whom I could depend, now they are all transients."

† This investigation was made by the author with the aid of his class in Business Data. Each student was asked to secure the information from families in the neighborhood in which he lived. An analysis of the occupations of the heads of the families shows the following distribution: skilled workmen 110; merchants 86; executives 73; professional men 71; salesmen 67; clerical workers 62; unskilled workmen 21; retired 20; unclassified 42.

of their purchases from a chain store as contrasted with those who make the largest amount of their purchases from an independent store. It is significant that *of the 552 families answering this question, 391 or about 70 percent did their chief purchasing in chain units.*

TABLE 26. Number of Stores Ordinarily Patronized by Middle Class Families in Purchasing Dry Groceries

Number of Stores Patronized	Families whose largest purchases were in a chain unit		Families whose largest purchases were in an independent store		All Families	
	Number of Families	Per cent	Number of Families	Per cent	Number of Families	Per cent
1	67	17.1	51	31.7	118	21.3
2	172	44.0	60	37.2	232	42.0
3	104	26.6	40	24.8	144	26.1
4	35	9.0	7	4.4	42	7.7
5 and over	13	3.3	3	1.9	16	2.9
Total	391	100.0	161	100.0	552	100.0

Only 21.3 percent of the housewives confined their purchasing of dry groceries to a single store, while 36.7 percent shopped around at three or more stores. The tendency of those using a chain store as the chief source of their purchases to shop around is indicated by the fact that only 17.1 percent of these did their entire purchasing at a single store, but 31.7 percent of those who use an independent store for most of their purchases traded exclusively with one store. On the other hand 38.9 percent of those doing the largest amount of their buying in a chain unit patronized three or more stores, whereas 31.1 of those who use an independent store for most of their purchases traded at three or more stores.

Table 27 shows the percentage of total purchases of dry groceries which were made at any one store for the 552 families. From the percent column on the right it is evident that less than a third of the families purchase as much as 90 percent of their groceries at any single store.

TABLE 27. The Number of Families Purchasing Various Proportions of Their Groceries at a Single Store

Percent of Purchases in One Store	Families whose largest purchases were in a chain unit		Families whose largest purchases were in an independent store		All families	
	Number of Families	Per-cent	Number of Families	Per-cent	Number of Families	Per-cent
90 and over	100	25.7	66	40.7	166	30.1
80 to 90	41	10.5	11	6.8	52	9.4
70 to 79	133	34.1	51	31.5	184	33.3
60 to 69	45	11.5	11	6.8	56	10.2
Less than 60	71	18.2	23	14.2	94	17.0
Total	390	100.0	162	100.0	552	100.0

About 27 per cent of the families purchase less than 70 percent of their dry groceries at any one store. Of the families who make their chief purchases at chain units only 25.7 percent purchased as much as 90 percent from a single store, whereas of those who make their chief purchases in independent units 40.7 percent purchased as much as 90 percent of their groceries in one store. On the other hand 29.7 percent of those who purchase the largest amount of their goods in a chain unit purchased less than 70 percent in any one store, and only 21.0 percent of those who do their leading purchasing in an independent store purchased less than 70 percent of their total groceries in a single store.

Inadequate as these figures are for the purpose of drawing any definite conclusion, they do indicate that *on the whole, allegiance of customers is stronger to independent stores than to chain stores;* that *the customers of chain stores tend to shop around among a larger number of stores than do the patrons of independent stores;* and that *the customers patronizing chiefly chain stores purchase a smaller proportion of their total groceries from a single store than do the customers patronizing chiefly independent stores.*

The general use of the "cash and carry" system among this type of customers is indicated by the fact that *only 30.7 percent of the families were accustomed to have their groceries delivered, and only 10.4 percent used charge accounts.* In making their purchases 64.1 percent of the housewives walked to the store, 23.3 percent drove in a car, and 12.6 percent telephoned their orders. Of the women who walked to the store 80.3 percent made their main purchases at chain stores, and of those who drove 82.5 percent dealt chiefly at chain stores, while only 21.5 percent of those who ordered by telephone dealt with chain stores.

As an indication of the importance of "price" as a factor in selecting the store from which goods are purchased, may be cited the fact that 12 of the 60 housewives, who gave their reason for changing their main source of supply during the year and who are now dealing with chain units, went to the new store in order to secure lower prices; one changed to an independent store from a chain in order to get "better values." Approximately 60 percent

of the women questioned asserted that they usually read the grocery advertisements in the newspapers. This also would indicate that price is one of the chief factors in determining where groceries will be purchased, as these advertisements use price appeals almost exclusively. Still another indication that price is a leading factor is found in the fact that 32.8 percent of these housewives kept an exact account of their expenditures for groceries.*

Assuming that the facts and reasoning given above are indicative of the general situation, we may conclude that changing economic factors have considerable influence upon the survival rate of independent retail stores. In the long run those stores which fail to meet these new economic conditions with new merchandising methods will tend to be eliminated. It is natural that the effect of these conditions will be greatest in those sections where the changed buying habits have been most pronounced. We have pointed out above that the people who have been influenced most have been those of the upper middle income group—principally of the older American stock. This is the class in general whose incomes have raised their standard of living into the small luxury habits, while at the same time it constitutes the chief reading class of the public, i. e., the class most susceptible to modern advertising. In the following chapter we shall show the effects of the changing buying habits upon grocery stores in different sections of the city.

* In all there were 79 housewives who changed their chief source of supply for groceries, 19 of whom refused to give their reasons. Other reasons given were: Moved 19; Poor service 6; Acquaintance 3; More convenient 8; Poor quality 4; Disagreeable manager (chain) 2; To secure fresh vegetables 1; Store out of business 2; Other causes 2. Of the 79 who changed 58 are now dealing with chain stores and 21 with independents.

X

MORTALITY IN RELATION TO POPULATION

In 1928 there were 2081 retail grocery stores in the city of Buffalo, including 407 units of chain stores. The population as estimated by the United States Bureau of the Census for 1928 was 555,800* which would give 267 inhabitants per grocery store. The Census of Distribution of Eleven Cities conducted by the United States Bureau of the Census shows an average of 325 inhabitants per grocery store in those cities.† In spite of the different bases used for these studies we may conclude that the number of stores in Buffalo is somewhat greater in proportion to population than the number in the cities covered by the census.

In our study of grocery buying habits of housewives, it was found that the average distance traveled to the store where groceries were bought was about four blocks.†† That the grocery stores in Buffalo are accessible to most of

* The initial report of the United States Bureau of the Census for 1930 shows 572,913 inhabitants in Buffalo.

† The Census of Distribution shows the number of inhabitants per grocery and delicatessen store for the eleven cities as follows: Atlanta, 186; Baltimore, 283; Chicago, 360; Denver, 369; Fargo, 261; Kansas City, 335; Providence, 326; San Francisco, 335; Seattle, 316; Springfield, 225; Syracuse, 289. *Retail and Wholesale Trade*, p. 23. The facts that the populations of these cities were estimated, and that the classification "Grocery and Delicatessen" is not strictly defined, make accurate comparison impossible.

In the Louisville Grocery Survey (U. S. Department of Commerce, *Distribution Cost Studies No. 6*) covering a population of 364,380, 1,357 grocery stores were found. Dividing the population by the number of stores, we get 261 inhabitants per store.

†† See Chapter IX for other facts brought out in this investigation.

the families by a few minutes walk is readily seen when their locations are spotted on a map. The fact that people can and usually do trade in nearby stores gives a basis for studying the influence of the density of stores in relation to population upon the types of stores and the mortality rate. By breaking down the figures according to wards and using "the number of stores per 1000 inhabitants" as the unit of density we may measure this influence.

Density of Stores in Different Districts

The population for the city of Buffalo is given by wards in both the Federal Census of 1920 and the State Census of 1925. The boundaries of the wards used in these two counts have since been changed, but the only population figures for subdivisions are given in terms of the old wards, so we have found it necessary to use them rather than the new wards. An obvious limitation to the use of ward boundaries for a study of this kind is the fact that such boundaries are arbitrarily fixed by political expediency, and do not take into consideration market areas or shopping districts. Under these circumstances it is evident that shopping areas overlap to some extent—that is, that people living in one ward may purchase their goods in others.

There were twenty-seven old wards in Buffalo varying in population (according to the 1925 Census, which is the latest available count) from 8,681 to 65,480. Table 28 shows for each ward the population, the total number of stores recorded in 1928, the number of stores per 1000 inhabitants and the mortality rate of independent stores

for 1927. In general the wards with the larger population had the greater number of stores, and those with the smaller population the smaller number of stores. However, the number of stores per 1000 population varied from

TABLE 28. Population, Number of Grocery Stores, Stores per 1000 Inhabitants and the Mortality Rate for Each Ward in the City of Buffalo

Ward	Population 1925 Census	Total Grocery Stores *1928	Stores per 1000 Inhabitants	Mortality rate of Independent Stores 1927
1	14,922	71	4.75	36.5
2	8,681	83	9.56	24.7
3	10,693	66	6.17	31.5
4	14,332	67	4.67	34.5
5	30,460	94	3.09	30.8
6	8,909	44	4.94	32.5
7	11,322	65	5.74	32.8
8	13,678	50	3.66	40.9
9	13,333	67	5.03	28.2
10	17,017	78	4.58	29.4
11	23,110	111	4.80	31.5
12	9,218	30	3.25	50.0
13	11,263	40	3.55	27.3
14	13,725	47	3.42	26.8
15	19,850	72	3.63	36.8
16	25,845	99	3.83	31.0
17	19,585	55	2.81	40.0
18	23,419	56	2.39	35.1
19	30,959	95	3.07	37.3
20	65,480	176	2.69	39.5
21	36,079	177	4.91	28.3
22	19,678	81	4.12	30.2
23	23,158	35	1.51	†
24	19,887	91	4.58	35.9
25	18,980	41	2.16	32.1
26	19,184	98	5.11	28.1
27	15,152	92	6.07	29.8

* We have used the total grocery stores as of 1928, because this is the only year for which we have chain store figures by wards. The mortality rate for 1927 is used because this is the last year for which we have the exit figures.

† Ward 23 has been eliminated from our computation of mortality rates, because the number of independent stores in this ward is too small to give meaning to the ratio involved.

1.51 in Ward 23 to 9.56 in Ward 2. In other words the density of stores was six times as great in Ward 2 as in Ward 23. An examination of Ward 23 reveals that it includes one of the most expensive residential districts in the city. It is characterized by palatial residences set back on beautiful lawns along broad parkways. It is apparent that, in general, the housewives of this district patronize the downtown credit and delivery stores.*

Ward 25, which has 2.16 stores per 1000 inhabitants, is similar in many respects to Ward 23. However, a large proportion of its population is what might be termed middle-class, composed of clerical and professional workers. In this ward is situated the well developed Elmwood-Utica marketing center. The stores here are large, carry a wide variety of quality products and apparently cater to the higher-class trade.

The highest density of stores is found in Wards 2, 3 and 27, with 9.56, 6.17, and 6.07 stores per 1000 inhabitants respectively. These three wards are perhaps the most congested in the city. They are in the older part of the down-town residential section of the city, from which the native population has been constantly pushed by the encroachments of business, industry and railroads. All three of these wards have decreased in population since 1920. The rents are low and the entire section extending east from Niagara river may be regarded as a slum district. The Census of 1925 showed that more than 12 percent of the population of these three wards was alien. The

* There are many exceptions to this statement, and the fact that 24 of the 35 stores located in the ward are chain units would indicate that there is a tendency to break away from this practice.

people in Wards 2 and 27 are largely Italian, while those in Ward 3 are Polish. In many parts of these wards only the native tongue is heard, and the entire district has a foreign atmosphere.

Most of the grocery stores in these wards are of the small "hole-in-the-wall" type. They are dark, dirty, and ill-kept, and carry a small stock consisting chiefly of macaroni, tobacco, flour, candy and some canned goods. It appears not unusual on certain streets to find that almost every other house contains a grocery store. Many are run by women, the men of the family being engaged in some other occupation.

By spotting the stores upon a map, a striking difference is revealed between the location of stores in the older districts where the population per store is relatively small, and the newer districts where the population per store is large. Chart 12A shows graphically the distribution of stores in Wards 9 and 10 representing the older districts, while Chart 12B shows the distribution in Ward 5 representing the newer districts. It will be noted that in Wards 9 and 10 the stores are scattered fairly evenly throughout the area, each store being more or less isolated from the others, while in Ward 5 (with the exception of that part north of the Buffalo River which is an older part of the city) there is a concentration of stores along the leading highways. These concentrations constitute market centers patronized by the people of the district and by many living in the suburban sections who form the daily traffic on these streets.

Several reasons may be suggested for the difference in

distribution of stores in the two types of districts, chief among which is a difference in the purchasing power per family, i. e., the scattered stores are found in sections with relatively low purchasing power. Apparently the people of these districts purchase their groceries consisting chiefly of staples, in small quantities from day to day or even hour to hour, largely on credit and from small neighborhood stores. The neighborhood grocer is usually intimately acquainted with his customers, and sympathetic with their needs. He is situated just around the corner, so that the housewife may send out to him at any time for a bag of flour or a couple of eggs. He needs no telephone as many of his customers are not supplied with

CHART 12A. Map of Wards 9 and 10 Showing Distribution of Grocery Stores

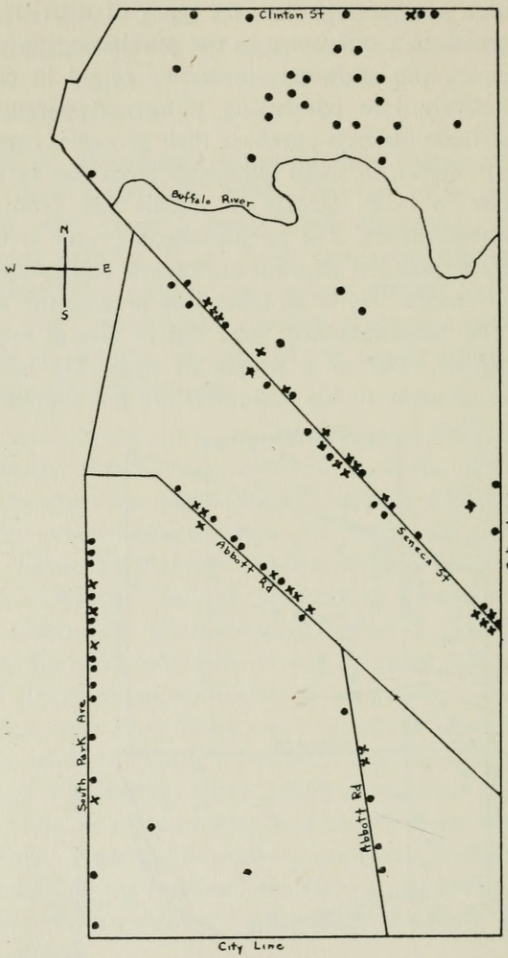

CHART 12B. Map of Ward 5 Showing Distribution of Grocery Stores

this means of communication. His store is so conveniently located that delivery service is not required.

In the districts where market centers have developed, the people generally have larger purchasing power. Their buying tends to be on a weekly rather than a daily basis, for the reason that the time of the housewife is considered valuable and ready money is available for quantity purchases. The stores which develop in these marketing centers are larger than those in the less concentrated areas, because the more prosperous conditions of the inhabitants demand greater variety, and their broader reading habits familiarize them with brands and qualities. The stores in these market centers have a more sanitary and attractive appearance than those located in sections where the stores are more scattered, for people of the higher income class place a greater value on these characteristics.

Two types of stores appear to predominate in the market centers: the large cash and carry type, and the large credit and delivery type. In other words people of the higher income groups appear to demand either the rapid service of the "cash and carry" and the self service type of store, or the delivery of goods to their door on credit and telephoned order. In either case the business transactions are rather impersonal in the sense that the grocer is not expected to become intimately acquainted with his customers.

Undoubtedly the fact that large numbers of the upper income groups have automobiles available for their marketing has influenced the concentration of stores in shopping

centers. Automobiles have enabled people to travel a greater distance from home to do their grocery buying, consequently it is not necessary to patronize the nearby store. At the same time traffic congestion and limited parking space in the major shopping centers of the city have apparently caused a decline in the grocery business of the down town centers. Likewise the automobile is probably one of the major factors causing a large proportion of the grocery purchases to be made on Saturday. The family car is often in use during the week, but is available Saturday afternoon for the weekly marketing.*

Another factor which has doubtless been a controlling cause of concentration of stores in some of the newer districts is the zoning restrictions. In general, these restrictions may be considered as a reflection of the sentiment of the community against having stores scattered throughout the residential districts. In other words, restricted residential sections do not appeal to the people who prefer the convenience of nearby stores to the advantages accruing from the restraints. But restricted trading districts do have the general effect of making store rents higher. To pay these higher rents it is necessary for the stores to have a relatively large volume of business, consequently fewer stores per 1000 population can be supported.

In many of the districts the location of market centers may be due in part to the momentum of an early start. The first stores in the district were located along the main

* The writer has observed such a family car draw up to the curb in front of a cash-and-carry store, and later found the owner had purchased as much as eighteen dollars' worth of groceries.
In our study of grocery buying habits of middleclass families it was found that approximately half of the housewives purchased 50 percent or more of their groceries on Saturdays.

thoroughfares. Later, as the community grew up, other stores were located adjacent to those which already appeared successful, or which sold complementary goods. However, this will not fully explain the tendency toward concentration, for it may be assumed that if the people in these newer districts preferred to trade in small nearby stores, such stores would soon develop to meet their demands.

Relationship between Store Density and Mortality Rates

The facts presented above concerning the effect of the density of stores relative to population, upon the types of stores existing in different parts of the city, suggest that there may be a relationship between the density of stores in different wards and the mortality rates in those wards. A comparison of the mortality rates in each ward for 1927 with the number of stores per 1000 inhabitants is shown in Table 28 page 112. It is readily seen that Wards 2, 3, and 27 which have a high density of stores have relatively low mortality rates, while Wards 25 and 18, with low density of stores have somewhat higher mortality rates. By correlating the two columns, a coefficient of —.49 was found. This would indicate that in general, those wards which contained the fewer stores per 1000 inhabitants tended to have the higher mortality rates for independent stores in 1927. Any generalizations, however, which may be drawn from this correlation must be regarded with considerable skepticism, for not only is the coefficient itself low, but the data from which it is computed relate to only twenty-six observations (wards). Furthermore, it must be remembered that the mortality

figures are for one year only, and that due to the small numbers involved, the figures for another year might produce entirely different results.

If we distribute the 231 stores, which were listed in the city directory throughout the entire eleven-year period studied, according to wards, we find that the larger proportion of these stores is in wards having a high density of stores. Sixty-three of these stores are located in Wards 27, 2, 10 and 11, in none of which is the density of stores less than 4.50 per 1000 inhabitants. This fact would tend to confirm the inference drawn from the relationship between the density of stores and the mortality rates, that in general, stores continue to remain in existence longer in those wards where the number of stores per 1000 inhabitants is greater. However, the fact that these older stores must on account of their age be located in the older districts of the city, suggests that there may be no causal relationship between the density of stores and the number of old stores.

One would ordinarily suppose that, other things being equal, those districts having a high density of stores per 1000 population, i. e., small number of inhabitants per store, would have the greater percentage of withdrawals, inasmuch as the small stores are the ones which are most likely to change hands.* On the other hand, it may be reasoned that the competition in those districts which are served by the small stores is not so intense; that since such stores are somewhat isolated and have as competitors only stores of like size, they are more likely to survive than stores of equal size located in a district where larger stores predominate.

* See page 67.

XI

MORTALITY IN RELATION TO CHAIN STORES

In Chapter II it was shown that the number of independent grocery stores in the city of Buffalo increased consistently each year from 1920 to 1926, while during 1927 and 1928 the total number has declined. No figures are available as to the total number of chain grocery stores engaged in business prior to 1923, but since that year, when there were 274 chain units in existence, there has been a continuous increase in the number until 407 stores were found in 1928.

Table 29 shows the number of independents, the number of chain units, the total number of independent and chain units, and the percentage of this total which were chain units. The greatest increases in the number of chain units took place in 1925, when fifty more were recorded than in 1924, and in 1927 when 43 new units are shown. In these two years 73 chain units or about 54 percent of the total increase for the six year period were added. The

TABLE 29. Number of Independent and Chain Grocery Stores in Buffalo, from 1923 to 1928, Inclusive

Year	Number of Independent Stores	Number of Chain Stores	Total Number of Stores	Percentage Chain Stores
1923	1786	274	2060	13.3
1924	1792	286	2078	13.8
1925	1875	336	2211	15.2
1926	1906	355	2261	15.7
1927	1743	398	2141	18.6
1928	1674	407	2081	19.5

year 1925 also shows the greatest increase of any single year during the period studied in the number of independents, but there was a notable decrease in the number of independents in 1927. The increase in the number of chain units during the last two years studied did not offset the decline in the number of independents, consequently the total number of stores in 1928 was less by 180 stores than the number recorded in 1926.

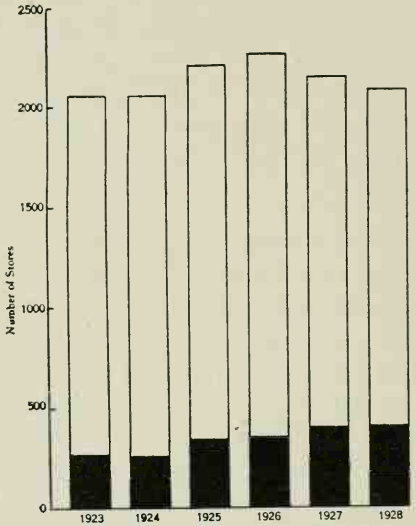

CHART 13. Total Number of Grocery Stores in Buffalo 1923-1928, and Proportion Which were Chain Units

Chart 13 shows graphically the total number of grocery stores in Buffalo for each year and the proportions of these stores which were chain units. In 1923, 13.3 percent of the grocery stores were units of chains; by 1928 the

percentage had increased to 19.5. It is evident that part of this increase in the proportion of chain stores to all stores is due to the decline in the number of independent stores during the last two years studied, the actual number of new chain units added in 1928 being only nine.

Volume of Business of Chain and Independent Grocery Stores in Buffalo.

The Census of Distribution of Eleven Cities showed that 21 percent of all grocery stores in these cities were chain units.* Though it is possible that the methods used in collecting the data for the census, particularly the definitions of grocery and of chain stores, do not give us entirely comparable figures, it is believed the number of chain stores in Buffalo is fairly representative of cities of its size. The census was taken as of 1926, and the percentage of chain grocery stores to all grocery stores is not broken down for the various cities. The percentage of chain stores to all stores in Buffalo in that year was 15.7. Another factor which might tend to give Buffalo a lower percentage of chain grocery stores is the somewhat larger type of store used by the Loblaw chain in this city. These stores sell three to four times as much goods as the average of other chain units.

If we assume that the average sales for the 1906 independent grocery stores in business in Buffalo in 1926 was $17,380, which is the average amount given for the independent grocery stores of the eleven cities, we derive a figure of $33,126,280 for the total business of Buffalo independent grocery stores. In the same year there were

* *Retail and Wholesale Trade*, page 97.

355 chain grocery stores operating. If these stores did an average business of $45,997, which is the average amount of sales given for chain units in the eleven city census, we derive a figure of $16,328,935 for the chain grocery sales in Buffalo for that year. If this figure is then corrected for the number of Loblaw stores in the city in 1926, we secure $18,623,035 as the estimated amount of sales by chain stores in Buffalo during 1926. Adding this amount to the $33,126,280 given for independent grocery store sales we secure $51,749,315 as the grand total of grocery store sales in Buffalo for 1926. By this estimate the chain stores did approximately 36 per cent of the grocery business in Buffalo in 1926, as compared with the average of 41.3 percent done by them in the eleven cities.*

The annual per capita sales figures in grocery and delicatessen stores for the eleven cities in which the distribution census was taken ranged from $63.47 in Chicago, to $126.35 in Atlanta.† In the 1928 census of food distribution for Louisville, the annual per capita sales for such stores was estimated at $93.88.†† If we divide the total estimated grocery store business in Buffalo by the estimated population, we secure an annual per capita sales figure of $95.40. This is well within the figures of the eleven cities census, and very close to the figure given for Louisville.

Assuming again that our method of finding the total grocery store sales in Buffalo is correct, and that the per capita sales have remained the same, we may estimate the

* It must be noted that the estimates for Buffalo are derived by multiplying the averages of the eleven cities by the number of stores according to our count, and correcting the product for the effect of one chain store system with exceptionally large units.

† *Retail and Wholesale Trade*, p. 22.

†† *Louisville Grocery Survey, Part I*, U. S. Department of Commerce, Distribution Cost Studies, No. 6, p. 17.

total grocery business in Buffalo in 1928 by multiplying the per capita figure, i. e., $95.40, by the population. The estimated population in 1928 was 555,800, thus giving us $53,023,320 for the grocery sales in 1928. Using the same figures for the average amount of business per independent store and per chain store as used in our method of estimating the total sales, we find that the 1674 independent stores in Buffalo in 1928 did $29,094,120 worth of business, and that the 407 chain units did $23,412,470 worth of business the same year. This gives us a total of $52,506,590 for the total grocery business by using this method, as compared with $53,023,320 computed by using the population figure.*

Chart 14 compares graphically the proportion of chain store units to the total number of grocery stores, with the estimated proportion of chain store grocery sales to all grocery sales for the years 1926 and 1928. It is evident from this chart, based on the above estimates, that in 1926, 15.7 percent of the grocery stores belonged to chain systems, and that this 15.7 percent of the stores did 36.0 percent of the total business. In *1928, 19.5 percent of the grocery stores belonged to chain systems, and these stores did 44.6 percent of the grocery business.*

Effect of Chain Store Growth upon the Lives of Independent Stores.

If the growth of the chain store business had any

* Using an entirely different method and working independently of the writer, the advertising department of the *Buffalo Evening News* estimates that the total grocery store business in Buffalo for 1929 amounted to $54,178,400, of which $24,088,600 was done by chains and $30,089,800 by independents. See mimeographed bulletin entitled, *Food Advertising Appearing in Buffalo During 1929*, Buffalo Evening News.

marked effect upon the withdrawals of independent stores, we should expect to find this reflected in an increasing mortality rate for the latter. In Chapter VI we pointed out that the mortality rate appears to have increased some-

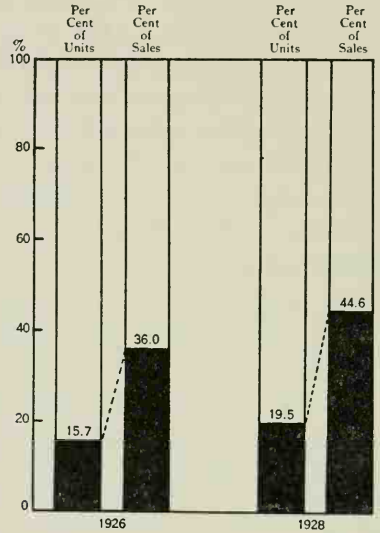

CHART 14. COMPARATIVE GROWTH IN CHAIN GROCERY STORE UNITS AND IN CHAIN STORE BUSINESS, 1926 AND 1928

what over the ten year period. However, the increase has not been consistent, nor has the period studied been of sufficient duration to make definite conclusions possible. There is every reason to believe that the mortality rate for grocery stores has always been high. The fact that the number of independent stores in existence is declining would tend to give us an increasing rate of mortality even if the number of withdrawals remained constant.

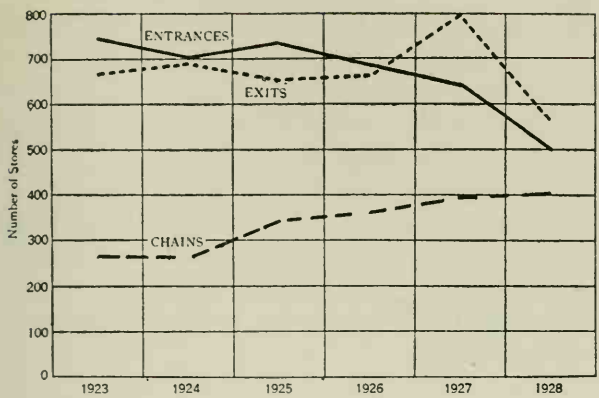

CHART 15. Comparison of the Number of Exits and Entrances of Independent Stores with the Number of Chain Stores in Buffalo, 1923-1928 Inclusive

A clearer understanding of the effect of the growth of chain stores upon the lives of independents may be had by a comparison of the number of chain units with the number of entrances into and exits from the independent grocery business, over the six year period for which the data are available. This comparison is shown graphically in Chart 15. No relationship is apparent between the increasing number of chain units and the varying number of exits from the independent grocery business. On the other hand there is a distinct tendency for the number of entrants into the independent business to decline throughout this six year period during which there is a notable increase in the number of chain units. Unfortunately the lack of data as to the number of chain units in business prior to 1923 prevents us from making more than the six year study, and this period is far too short to warrant any

accurate conclusions. However, if the period is representative of the general situation, it is apparent that the growth of chain stores in the grocery field has tended to restrict the entrances into the business by independents rather than to cause those already in the business to discontinue it. In view of the fact that a large proportion of the exits from the grocery business consists of one-year firms, it may be assumed that the smaller number of proprietors entering the business will tend to reduce the mortality rate. The abrupt decline in exits in 1928 may be attributed to this.

Further light may be thrown upon the effect of chain store growth upon the lives of independent stores by breaking down our figures according to wards as was done in our study of population factors. This is done in Table 30 which shows for each ward of the city of Buffalo the number of chain units, the percentage of chain stores to all grocery stores, and the number of all grocery stores per 1000 inhabitants. The high concentration of chain stores in certain wards is evidenced by the fact that while Ward 20 has 81 units within its borders, there are four Wards, 2, 9, 10 and 27, in each of which there is located less than 5 chain stores. Five of the 27 wards, viz, Wards 20, 5, 21, 22 and 19, contain approximately half of all the chain stores in the city.

The percentage of chain stores to all stores varies from 2.6 percent in Ward 10 to 68.6 percent in Ward 23.

TABLE 30. Number of Independent Grocers, Number of Chain Grocery Units, Total Number of Stores, and Percentage Chain Units by Wards, 1928

Ward	Independent Grocery Stores	Chain Grocery Stores	Total Grocery Stores	Percentage Chain Stores to all Grocery Stores
1	64	7	71	9.9
2	80	3	83	3.6
3	61	5	66	7.6
4	52	15	67	22.4
5	62	32	94	34.0
6	39	5	44	11.4
7	59	6	65	9.2
8	43	7	50	14.0
9	65	2	67	3.0
10	76	2	78	2.6
11	102	9	111	8.1
12	23	7	30	23.3
13	31	9	40	22.5
14	41	6	47	12.8
15	62	10	72	13.9
16	93	6	99	6.1
17	38	17	55	30.9
18	34	22	56	39.3
19	67	28	95	29.5
20	95	81	176	46.0
21	146	31	177	17.5
22	55	26	81	32.1
23	11	24	35	68.6
24	73	18	91	19.8
25	26	15	41	36.6
26	88	10	98	10.2
27	88	4	92	4.3

Chart 16 gives a cross-hatched map of Buffalo, representing the percentage of chain units to all stores in each ward. The solid black portion of the map indicates those wards in which at least 30 percent of the grocery stores are chain units, while the white portion of map represents wards in which less than 10 percent are chain stores. Of the districts in which there is a high percentage of chain stores, Wards 20 and 5 are characterized by relatively

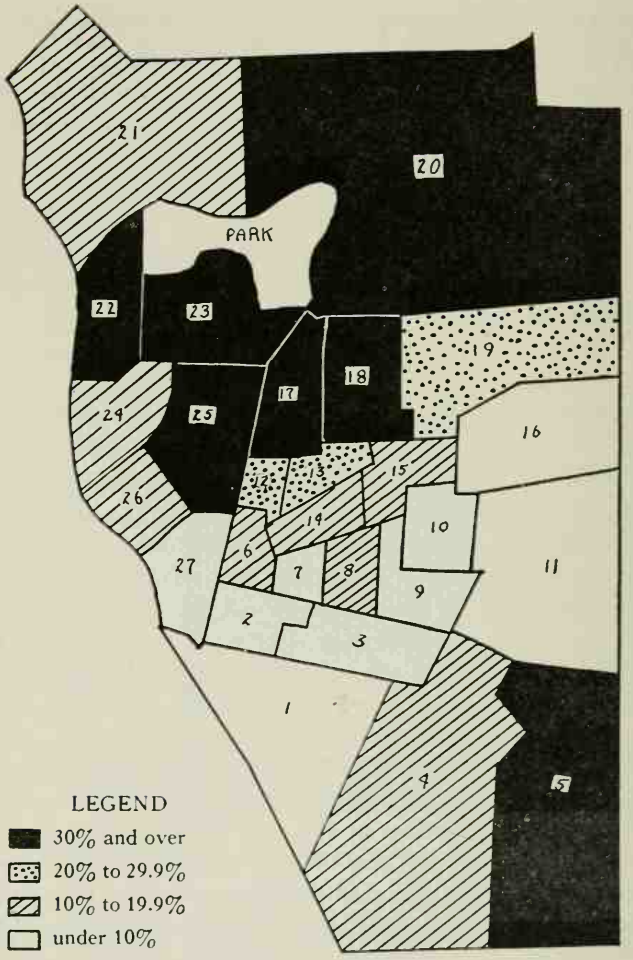

CHART 16. MAP OF BUFFALO SHOWING PERCENTAGE OF CHAIN GROCERY STORES TO ALL GROCERY STORES BY WARDS

new and rapidly growing populations. Between 1920 and 1925 the population of Ward 20 increased 70.3 percent, and that of Ward 5 increased 28.5 percent. Wards 22, 23, 25, 17 and 18 are located in the north central portion of the city which in general may be said to comprise the best residential sections. The population of all seven of these wards consists largely of business and professional people. Old American families predominate, and in none of these wards is the alien population as high as 10 percent. Rents are high, and in several sections there are restricted zones for residential property. On the whole the inhabitants constitute the highest income groups of the city.

Concentration of Chain Stores in Market Centers

In most of these chain store districts there appears a strong tendency for stores to group themselves into market centers, such as were mentioned in the preceding chapter. In these shopping centers several chain stores are often found operating within a single block, and sometimes two units of the same chain may be found apparently competing with each other. It may be added that it is not uncommon to find high-grade credit and delivery stores apparently competing successfully with chain units on either side of them.

In each of Wards 2, 9, 10 and 27 chain stores constitute less than five percent of the total grocery stores. These are the wards in which chain stores apparently find it most difficult to operate. They are typical low rent districts and include the congested slum sections of the city.

The population in all four wards declined between 1920 and 1925. It is composed largely of the more recently arrived immigrants, chiefly from Italy and Poland, the former predominating in Wards 2 and 27, and the latter in Wards 9 and 10. The census of 1925 showed that the population of these four wards was approximately 15 percent alien. The inhabitants are chiefly unskilled workmen. The families are large.

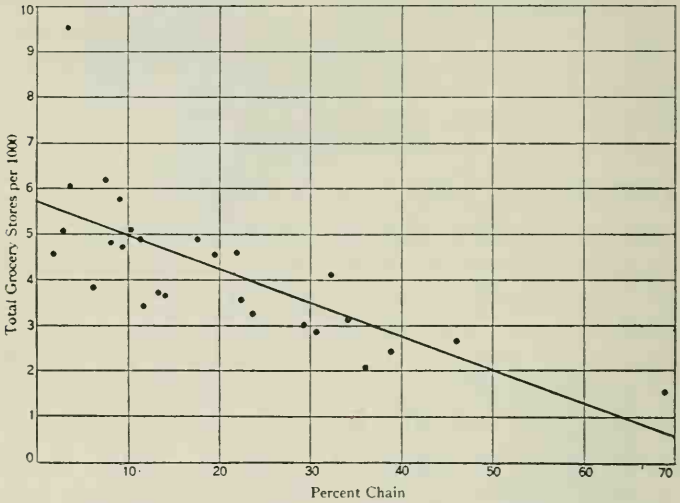

CHART 17. Percentage Chain Stores to all Stores Correlated with the Total Number of Grocery Stores per 1000 Inhabitants for Each Ward, in 1928

In general the larger proportion of chain grocery stores is found in districts where the number of stores per 1000 inhabitants is small. A correlation between the number of stores per 1000 population and the percentage of chain

stores gives a negative coefficient of .733. This correlation is shown graphically in Chart 17. The relatively large number of inhabitants per store in districts where chain stores predominate is partly a reflection of the fact that the average volume of sales of a chain unit is more than twice as large as the volume of sales of an independent unit. On the other hand, it is observed that even the independent stores in these districts tend to be large, and all types of stores tend to concentrate in market centers.

A number of reasons may be suggested for the tendency of chain stores to concentrate in certain sections of the city, more or less to the exclusion of other sections. First, chain stores are relatively a new development in the marketing of groceries, and as the development is based purely on the business motive, it is natural that locations will be selected which are most conducive to their profit-making purpose. A chain store system has a distinct advantage over an independent store in that it can, by comparing unit with unit, determine at all times which locations are the more profitable, and in the fact that a store which is located in an unprofitable neighborhood may be closed and another opened in a more advantageous situation, without injury to the system as a whole. On the other hand, the independent store owner often has no means of determining the relative profitableness of a site, and even when he finds a site unprofitable, it is difficult for him to move to another locality without sacrifice. Not only is he often attached to his community by property ownership, and ordinary personal ties, but these personal ties are his chief stock in trade.

As a result of seeking the most profitable locations there develops a strong tendency for chain stores to concentrate in those centers where a profitable volume of business may be secured. It is possible that as chain store systems are further developed they may find it more worth-while to enter low-income districts which are not now developed, rather than to attempt to withstand the intense competition with other chains in well developed chain districts.

Under present methods of doing business, however, a chain store unit must sell a fairly large volume of goods in order to be on a paying basis. A large proportion of the chain unit's expenses is in the form of fixed charges, which do not vary with the volume of sales. Its employees are paid a fixed wage, its rent is fixed in advance. A store cannot long be maintained which does not produce a margin covering these fixed and other charges, and also yielding some income for the investors in its stock. But the independent grocer whose sales force consists of himself and family, who owns part of his stock, sometimes even the building in which he operates, does not consider wages a fixed charge. Any margin above the cost of the goods which he sells is considered profit, and in many cases he is willing to continue in business indefinitely, with a volume of sales too small to pay wages to anyone, to say nothing of profit on invested capital.

In order to secure a profitable volume of business it appears necessary that chain units cater to a population of relatively large income. In general, people of this class are willing to pay cash for their grocery purchases, they purchase in relatively large quantities, many of them own

automobiles and do not desire delivery service. Furthermore this high-income group constitutes the most literate group of the population. For this reason they are susceptible to advertising in both newspapers and magazines. They are educated to purchase branded specialties, and they have the money to pay for them. They are also susceptible to the appeal of such impersonal factors as rapid service, cleanliness and orderliness. In fact many of them appear to demand an impersonal service, preferring to rely upon their own judgment as to the quality of branded goods rather than the judgment of the grocer.

To what extent the buying habits of the upper income groups are due to the general economic situation, and to what extent they are influenced by the propaganda of chain stores themselves, are factors impossible of measurement. It may be said, however, that the chain store systems have not been slow to recognize the predisposition on the part of these groups toward simplified buying, and have taken advantage of this situation to foster those buying habits which tend to produce a larger volume of sales or to reduce the costs of conducting such business. Most of the chain organizations have eliminated the credit and delivery systems from their business. They have specialized in the handling of well-established brands, and in order to bring this fact to the attention of the public, have advertised these brands in the newspapers, often at cut prices. They have made their stores attractive to this group by keeping them clean and orderly, and by giving rapid service. In some cases they have impersonalized their business to the extent of allowing the customers to select the goods they

wish from the shelves, and carry them to the cash register without the aid or intervention of a clerk.

That the present practices of chain stores as enumerated above are not well adapted to the lower income groups is evident. Many of these people do not have the money with which to pay cash for daily purchases.* The fact that in general they read less, causes advertising to be less effective among them. Branded specialties are not so well known to them. Orderliness and cleanliness do not attract them for the habits of many of them are neither orderly nor clean. As they do not consider their time valuable, rapidity of service is not a factor in their purchasing. They apparently rely more upon the judgment of the grocer, and are more dependent upon him, than are those of upper income groups.

The attempt on the part of chain systems to secure large sales volume by locating their stores in high income sections of the city leads to a certain amount of concentration in these districts, but it does not wholly account for the great concentration of chain stores in outlying market centers. The location of a few large grocery stores on a traffic highway tends to concentrate the attention of the entire community on this market center. Every addition to the number of stores extends the influence of such a market center to a wider area. This is especially true where these additions consist of complementary stores, such as meat stores, fruit and vegetable markets or drug

* In contrast to the tendency of chain grocery stores to cater to the upper income groups, are the jewelry, furniture, and clothing chain systems which with their installment features cater largely to the lower income groups.

stores. As the market center grows other merchants see the opportunities there, and open new stores. The first stores on a new street are generally experimental. They are usually independent stores, as many chains refuse to pioneer in locations which have not been tested by others. However, after one chain unit has apparently become successful, other chain systems quickly follow the lead and establish stores. It is a known policy of many chain systems to locate their units only in centers where other chain units appear to be doing a prosperous business. The managers believe that a location in a section where the chain method of doing business has proved successful, offers better possibilities than an untested location, even though the latter has no chain store competition.*

The outlying market centers are usually located in newly-developed sections of the city. The inhabitants in these sections are chiefly people of the younger generation who have been sufficiently successful in their occupations to buy homes. Such people by their very willingness to leave their old communities show a tendency to break away from attachments formed there, including such attachment as may have been formed for the neighborhood merchant. As they must necessarily form new business connections with a grocery store, they are open to the inducements of the chain store.†

* Some chain organizations appear particularly anxious to secure locations in growing market centers, on account of the growing value of their leases. However this is not a customary practice among grocery chains in Buffalo.

† "When a woman moves into a new neighborhood (in New York) it often happens that the only feature of the new landscape which looks like a little bit of home set down in the new surroundings is the local "A. & P." or "James Butler" or unit of such other chain store system as she may be accustomed to patronize." Ralph Alexander, *A Study in Retail Grocery Prices*, p. 31.

Effect of Chain Store Growth upon the Number of Entrances

The effect of the growth of chains upon independent stores may be discussed from two angles,—first, the effect upon the would-be entrants into the independent business, and second, the effect upon those independent stores already engaged in business. These two angles will be considered separately.

The first effect of the conspicuous growth of chain stores is upon the prospective entrant into business for himself. On the one hand the apparent success of the chain store method of doing business tends to break down the confidence of one who is considering entering business. The very evident tendency for more and more people to buy their groceries from chain stores makes him wonder whether or not he can build and maintain a business in the face of such competition. Consequently only the more courageous or the unthinking are likely to enter the business. This fact tends to eliminate from the prospective entrants many men who otherwise are capable and adaptable to the business, and limits the number of newcomers largely to a few courageous souls who are ambitious, and perhaps some day hope to start a new chain, or to a large number of unthinking persons who are, by that very fact, incapable of meeting the new competition.

At the same time the chain store systems themselves offer opportunities for employment which, in many ways, are more attractive to young and ambitious persons than

the ownership of a small business could possibly be. Among these favorable factors are an opportunity to earn an initial income which is probably greater than the individual could expect from ownership in a business for the first few years. Secondly, it offers an opportunity for the person who is unusually capable to increase this income to a greater extent than could possibly be expected from a single owned unit. Thirdly, it offers a training in systematic merchandising without the attendant risks of failure which an independent merchant has to face. Finally, it offers an opportunity to work with an established organization, often with a national name and under unified leadership, and to associate with large numbers of other men who have common interests. All of these factors and others too numerous to mention tend to induce large numbers of men to enter the chain store business in some capacity, and thus reduce the number of the more capable prospects* for the independent stores.

A second effect of the chain store upon the number of would-be entrants into the grocery business comes through the fact that the chain stores often select and lease the best available sites. In an earlier chapter it was stated that the first impulse to enter the retail business often comes from the observation of a vacant building. Naturally if the chain store leases the space first this inducement no longer holds. In general chain stores are willing to pay higher rents than the unit merchants for the sites they desire. Depending as they do largely upon traffic and other

* "More capable" because almost all chain store systems use some rating process in employing men whereas there is no restriction on men entering independent business.

impersonal factors for their business, they prefer to pay high rents to get favored locations where they can do a large volume of business, rather than to attempt to secure this volume by means of personal service.

Another reason suggested in Chapter VII why people enter business independently was to find an investment for their capital. Not only have many of the chain store systems offered investment opportunities to their employees, through liberal terms of purchase for their stock, and stock bonuses, but the stock of many chains is now available to the public at large. Therefore if one feels that a certain type of store business is likely to yield promising returns, it is not necessary that he enter the business as an operator to secure a share of these returns. It is quite possible that the total number of persons who share in the ownership and the profits of chain stores is larger than the number who would share in this ownership and profits if each unit of these systems were individually owned. In any event the increasing opportunities for investment in public companies tend to reduce the number of adequately financed persons who are willing to enter independent enterprises.

Effect of Chain Store Growth upon Existing Stores

The effect of the growth of chain store systems upon existing independent stores takes the form of intensified competition for sales. When a new chain unit enters a neighborhood which was without chain stores, to be successful it must inevitably draw most of its customers from among those who formerly traded with independent mer-

chants. Under these circumstances the independent merchant must compete with the new-comer in services and prices. Those independent stores which are alive to the new situation and are willing to adopt sound business policies to meet it, often afford strong competition to the new-comer.* The effect of the chain competition upon these stores is to stimulate them to greater efforts, and to better merchandising methods. On the other hand, those independent merchants who fail to recognize the advantages of the new competitor, and refuse to adopt new merchandising methods to meet them, tend to have a decrease in sales volume. This decrease does not usually mean an immediate withdrawal from business. Often such a store may, with thrifty management, continue in business for a number of years. However, a declining sales volume tends to be cumulative just as an increasing sales volume is cumulative. The fewer the number of people who trade with a store, the less attractive the store becomes even for these few. Consequently it may be said that these stores sooner or later must withdraw from business.

The competition of chain stores with existing independent stores affects every phase of their work; it includes a competition for sites, competition for personnel, competition for the best selection of goods, competition in service and competition in prices for the same goods. Although the scope of this paper does not permit a detailed study of all these phases of competition, it is desirable to point out a few of these competitive features which appear

* The city of Buffalo furnishes numerous examples of independent retailers located in the midst of chain store districts whose businesses have increased continually in spite of the chain competition.

to have a direct and definite effect upon the mortality of independent stores.

It was suggested above, in treating the effect of chain stores upon the prospective independent store owner, that chain stores usually selected the better sites and were willing to pay higher rents for these sites than the independent merchant. The effect of this practice upon other merchants in the neighborhood is to increase their rents. An increase in rent must either be offset by a decrease in some other cost, or be compensated for by an increased volume of business, if the same profit margin is to be maintained. Usually other costs cannot be cut down, so that the merchant must increase his volume of sales. Thus it comes about that those independent stores which continue to be successful in a chain store neighborhood become relatively large stores, and the stores with small volume are eventually eliminated.

The most obvious type of competition between chain stores and independent stores centers around prices. Both types of stores use the age old method of cutting prices on articles of recognized values to secure trade. Although several studies have been made to determine whether prices in general are lower in chain than in independent stores, no definite conclusion has been reached.* In general, however, it may be said that many people in chain store districts believe that chain store prices are lower, considering

* The most notable study of this kind is that made by Professor Ralph S. Alexander, of Columbia University, entitled *A Study of Retail Grocery Prices;* and published by the *Journal of Commerce.*
At the present time the Federal Trade Commission is making an exhaustive study of the question in connection with its chain store investigation.

the services involved; otherwise they would not leave their older stores in order to patronize the chain units.*

It is evident from the concentration of chain stores in certain districts that the chief competitors for any chain system are often other chain systems. At times the competition in these districts becomes intense, and the practice of zoning prices is resorted to by the chains. This means that the goods are offered for sale in the chain units of these districts at lower prices than in districts where the competition is with independent stores only. If this practice were general it would tend to reduce prices in neighborhoods where chain stores were prevalent. If the practice were carried to the extreme, it would make it difficult for the independent store to continue in business, inasmuch as the chain system may make its profits in other neighborhoods, whereas the independent has no recourse to such a compensating factor.

In general, it may be concluded that the growth of chain stores has tended, first to reduce the number of persons who are willing to enter the independent business; secondly, it has eliminated from the number of possible recruits to this business many of those who are best fitted by intelligence, training and experience; thirdly, it has tended to reduce the number who enter the business because of uninvested funds, and who have the advantage of adequate capital; and finally, it has reduced the number of available first class sites.

* That this belief is common is also reflected in the fact that the most effective appeal which chain stores have so far been able to use in their advertising has consisted of price quotations.

The effect of chain stores upon existing independent stores is first, to intensify the competition, and thus stimulate the better merchants to more activity and better studied methods; secondly, to reduce the sales of the less aggressive merchants and in time cause them to withdraw from business. In districts where chain stores abound and compete with each other they probably tend to lower the profit margin for the independent store, and at the same time increase its rental charges, thus necessitating a larger volume of sales and more efficient management.

*There is little indication that the development of chain stores has increased the mortality rate among independent stores.** Apparently there is a tendency at present for chain stores to replace independent stores in the higher income-class neighborhoods, and to reduce the number of those entering the retail business. In this way the total number of independent retail stores is being reduced, and therefore, the ratio of withdrawals to the total number of stores is declining, but the ratio of the withdrawals to the number of independents seems so far to be little affected. How far these movements may go, and what may be the ultimate effect cannot be predicted with any degree of certainty.

* In Appendix B, II, we have computed the partial correlation between the percentage chain stores, the number of stores per 1000 inhabitants and the mortality rates by wards. Due to the limitations of the data, and the consequent inconclusiveness of the results, this computation is not used in the text.

XII

ECONOMIC CONSEQUENCES

In the foregoing chapters we have analyzed the entrances into and exits from the independent grocery, drug, hardware and shoe trades, and have shown that the average annual turnover of drug stores was 12.6 percent; of hardware stores, 16.2 percent; of shoe stores, 21.8 percent; and of grocery stores, 35.9 percent. The excessively high mortality figures of grocery stores, together with the greater adequacy of the data developed for that trade, led us to give particular attention to the grocery business in an effort to determine the causes of retail trade mortality. It now remains for us to ascertain, insofar as possible, the social and economic effects of changes in proprietorship and to suggest remedies for whatever waste is involved in such changes.

It was pointed out in a previous chapter that the exits from business include enterprises of varying degrees of success and failure, from proprietors who retire after accumulating fortunes to those who are forced out by bankruptcy. Professor Nystrom, in his study of retail trade mortality in Oshkosh,* found the causes of the withdrawals of 201 retail stores over a period of twenty-two years to be as follows:

*Paul H. Nystrom, *Economics of Retailing* (Revised Edition) Vol. I, p. 404.

Death	24
Retired because of ill health	1
Bankruptcies handled by the courts	6
Failures or "fizzles"	124
Sold out, probably representing losses	27
Sold out, representing gains	14
Retired with competencies	5
Total	201

It will be noted that 33 of these stores or approximately 16 percent of the total number were sold out on account of debts to others which they could not pay. In the Louisville Grocery Survey it was found that of the 800 retail grocers in that city, 30 withdrew from business each month, or approximately 360 per year.* During a six month period four of these grocers filed bankruptcy petitions and "at least 24 others went out of business with considerable loss to creditors in each case." This would mean that 56 stores or 15 percent of those which left the business in one year, did so with a loss to creditors. If, for purposes of rough estimation, we assume that the situation in the Buffalo grocery trade is not greatly unlike that in Louisville and in Oshkosh (which assumption, of course, may or may not be warranted), and apply this 15 percent to the total of 6053 independent retail grocers who withdrew from business in Buffalo between 1918 and 1928, we secure a total of 907 stores which may have failed with losses to others.

Estimated Losses Due to Grocery Store Failures

We have no means of knowing definitely the amount

* *Credit Extension and Business Failures,* U. S. Department of Commerce, Trade Information Bulletin No. 627, p. 2.

of the losses caused by the failure of these 907 stores. The Harvard Bureau of Business Research, in studying the operating expenses of 501 *wholesale* grocery firms in 1923, found that the common figure for losses from bad debts amounted to four-tenths percent of their net sales.*

Our previous estimate of the amount of business done by independent grocery stores in Buffalo in 1926 was about $33,000,000 and in 1928 about $29,000,000. For the period 1918-1928, probably the average annual sales figure was not far from $30,000,000.† Assuming that this retail volume included an average markup of 20 percent by the retailers, it may be estimated that the average annual wholesale volume of sales to independent grocers was $24,000,000. If to this figure is applied the four-tenths percent found by the Harvard Bureau, a total of approximately $96,000 per year is secured as the loss to wholesalers due to retail grocery failures, or $960,000 for the ten-year period.

In addition to losses to wholesalers and other suppliers of merchandise the failures of retail stores usually cause losses to banks, equipment dealers and other creditors. Professor W. C. Plummer of the University of Pennsylvania, in a study of 35 bankrupt retail grocery stores in Philadelphia, found that the losses to wholesalers, jobbers, and manufacturers amounted to but 31.6 percent of the

* Harvard Bureau of Business Research, *Operating Expenses in the Wholesale Grocery Business in 1923*, pp. 18 and 47.

† See pages 124 and 125.

total losses to creditors by these bankrupts.* *If we consider that the $96,000 annual loss to wholesalers mentioned above represents only 31.6 percent of the total losses to all creditors, then these total losses may be estimated at about $300,000 per year or $3,000,000 for the ten year period. This amounts to one percent of the total retail sales.*

The second type of tangible business loss which might be calculated in dollars and cents, if the figures could be obtained, consists of the capital which the proprietors themselves put into the business. It may be assumed that practically all of the 907 retailers mentioned above lost some of their own capital in their failures, for, except in cases of financial dishonesty, creditors usually do not suffer loss until after the capital of the proprietors is exhausted. In addition to these 907 retailers, there undoubtedly were many

*Through the generosity of Professor Plummer the following figures from a manuscript not yet published are made available:

"Liabilities of Retail Grocery Stores at Time of Bankruptcy, Philadelphia, Pennsylvania, Excluding Mortgages on Real Estate ($417,656.00) and Liabilities Incurred by Indorsing Notes for Others ($36,045.00).

(35 Establishments)

Creditor	Number Stores owing each type of creditor	Amount	Percent of total
Wholesalers, Jobbers, and Manufacturers	33	$66,251.00	31.6
Loan or Insurance Companies	22	43,736.00	20.8
Commercial Banks	13	12,441.00	5.9
Individuals	27	58,164.00	27.7
Equipment Dealers (Installment Plan)	3	1,755.00	0.9
Morris Plan Banks	4	312.00	0.2
Others including preferred debts such as taxes and rent	31	27,286.00	12.9
Total		$209,945.00	100.0

"Since only one of these stores paid a dividend to creditors in bankruptcy proceedings, the remainder of assets, if any, being used for administrative costs, practically all of the amounts listed were total losses to the respective types of creditors.

"The average amount of money put into the business by the owners at time of organization was $2200. Since they all went out bankrupts, they either lost this amount at least, or gained at the expense of creditors by bleeding the business or conversion of assets."

(Quoted from a letter to the author under date of March 26, 1930).

more merchants who withdrew from business with a loss of some of their own capital, even though their creditors' claims were fully satisfied. The number who withdrew under these circumstances is difficult to estimate even roughly. No figures are given with regard to this group in the Louisville survey. In Professor Nystrom's study of Oshkosh, 124 of the 201 withdrawals, or 62 percent are attributed to "fizzles." He explains that these proprietors probably enter the business with a small capital, and after this is consumed or lost they "quietly slip out with little or nothing of their original capital."* If we add to this 62 percent the 15 percent who have also caused losses to creditors, we secure 77 percent as the proportion of those withdrawing who have probably lost some of their own capital. This 77 percent applied to the 6053 grocery retailers who withdrew from business, *gives us an estimate of 4661 proprietors who left the business after losing at least some of their capital.*

Little as we know about the number of stores which "fizzle," we know even less about the amounts of capital which the proprietors of these stores lose when they leave the business. If the store finds a ready sale it is likely that the proprietor can withdraw without severe loss.† But in most cases when a retailer finds he is losing money his first thought is to reduce purchases. His stock then becomes incomplete and he encounters further difficulty in satisfying his customers. When he attempts to sell his store, he must do so at a sacrifice of some of his capital.

* Paul H. Nystrom, *Economics of Retailing* (Revised Edition) Vol. I, p. 405.

† In fact some such proprietors, as illustrated in Chapter VIII, may even sell their stores at a net gain. Such instances, however, are believed to be rare.

If we arbitrarily assume that $500* is the average amount of personal loss to each of 4661 grocery retailers who have left the business during the interval studied, we secure a total of $2,330,000. *This amount added to the $3,000,000 lost to creditors amounts to about $5,000,000 or approximately 1.66 percent of the total volume of business for the period.*

It is roughly estimated that in the United States as a whole there are 250,000 independent retail grocery stores, doing an annual business of approximately $4,250,000,000.†

If this $4,250,000,000 is multiplied by the 1.66 percent derived above, a figure of $70,550,000 is obtained as the national credit loss each year due to failures of independent

*This estimate is based on the assumption that the retailer usually loses all or nearly all the initial capital he places in the business. In Chapter VII, page 67, we showed that the largest group of stores listed for sale was offered at a price between $1250 and $1750, and that the amount required as down payment was about one-third of this.

See also Table No. 40 p. 177—Distribution of Independent Grocery, Drug, Hardware and Shoe Stores in Buffalo according to their Estimated Pecuniary Strength.

† There are no accurate figures available as to the total number of grocery stores or the total annual sales of such stores in the United States, consequently the figures given here may be regarded as intelligent guesses based upon the following information. The United States Census of Occupations in 1920 showed 239,236 retail grocery dealers, an increase of 22.4 percent over the number found in 1910. If the same ratio of increase is applied to the 1920 figure we secure 291,824 dealers in 1930. This number would evidently include chain store dealers as well as independents. In 1926, R. L. Polk and Company, in a count of distribution outlets of the United States, for The 100,000 Group of American Cities, found 281,216 independent retail dealers in grocery and food products. This information is given by states in *A Study of All American Markets*, published by The 100,000 Group of American Cities. It is explained that the stores coming under the heading "Grocers and Food Products" are quite obvious, embracing everything in the line of food not provided for under Bakeries, Confectionery, Meats and Produce. The delicatessen store is included here, also the fish and fruit stores, teas, coffees, etc. Mr. Godfrey M. Lebhar, Editor of the *Chain Store Age*, and Mr. Carl W. Dipman, Editor of the *Progressive Grocer*, both use 250,000 in their publications as the estimated number of independent grocery stores. The annual national volume of grocery store business is obtained by multiplying the estimated number of grocery stores by $17,000, the approximate average annual sales per independent grocery store as found in the Eleven City Census (*Retail and Wholesale Trade*, p. 97).

*retail grocery stores. This amount is almost enough to feed the entire population of a city of a half million people.**

In many ways losses to proprietors themselves cause greater hardships than losses to others, as the former fall upon those least able to bear them. A large proportion of the creditors of these proprietors are wholesalers, bankers and landlords, to whom the loss incurred by the failure of any individual debtor is small compared with the total amount of the creditor's invested capital. Furthermore, these losses (regarded by the accountant as "allowance for bad debts") may generally be spread over the price of the total goods or services sold, and thus passed on to the consumers as part of the price of the goods. But the loss to an individual proprietor cannot be made up in this way. On entering the business he usually invests all his earnings as part payment for his store. As an individual entrepreneur he must be willing to assume the loss involved in his failure to the extent of his total capital. When he fails, his entire savings are often wiped out, and he has no immediate way of recouping them.†

That most of the losses mentioned above are business losses which result mainly in a redistribution of wealth rather than its entire destruction, there can be no doubt. We have stated above that the wholesalers shift their losses from the retailers who fail to pay their bills to those who do pay them. The losses to proprietors them-

**The Louisville Grocery Survey* (U. S. Department of Commerce, Distribution Cost Studies, No. 6, p. 19) shows the total annual per capita food purchases in that city to be $153.14.

† In a study of 25 grocery stores on verge of bankruptcy in Louisville it was found 46.1 percent of the initial capital had been invested by the owner without borrowing, 16.5 percent had been supplied by friends and relatives, and 37.4 percent came from banks, wholesalers and others. *Credit Extension and Business Failures*, p. 6.

selves, on the other hand, have resulted from selling their goods at prices which did not cover the actual costs involved.

Economic Waste Implied

Even more difficult to measure than the monetary losses to creditors and to the proprietors themselves, and more important from the social point of view, are the losses which involve actual economic waste. To the extent that these pecuniary losses represent economic loss as well, the labor and capital that have been expended simply fail to produce goods or services for the community. The amount of such real economic waste to society would have to be measured by the difference between the product resulting from the effort put forth by incompetent merchants in the grocery trade and the product which might result if such persons engaged in other pursuits for which they were better fitted. It is impossible to secure any definite monetary estimate of the amount of such social losses. The most that we can do is to explain the chief sources of this waste, the effects of which are in some cases obvious but in others can only be surmised. In any event, study of the rates of trade mortality makes it clear that their magnitude is far larger than is ordinarily suspected. The importance of the problem warrants further analysis.

We may divide the economic wastes incident to changes in proprietorship into three groups: first, those caused by the changes in proprietorships themselves, secondly, those due to the small scale of operation, and thirdly, those due to duplication of establishments. The first of these is due to the withdrawals, while the other two have to do with

co-ordinate factors which are in part the causes of this turnover.

Although the turnover of firms in the retail business is measured by the number of withdrawals divided by the total number of firms in existence during a given period, other factors than mere withdrawals must be considered when we attempt to picture the economic effect of the process. The typical story of a great many small retailers would be about as follows: A thrifty workman has saved $1000 in a ten year period. He decides to enter the grocery business and quits his job to look for a store. Finding a store selling for $1500, he invests his $1000 and gives a note for the remainder. At the end of six months or a year of operation he decides he is losing money and must sell out. After several weeks he finds a buyer who is willing to pay, say $800 for the stock. He sells his store and begins looking for another job.

In this case the workman left a productive job, likely causing his employer to hire and train someone else to take his place. Secondly, he must have used his own energy and effort and the energy and effort of others in finding and purchasing a store and in making contacts with wholesalers and other dealers to supply him with goods so that he could carry on his business. Finally, in closing out, the proprietor in addition to discommoding his customers, had to exert efforts to find a place for himself in industry again and become adjusted to it. The only gain from all these efforts on the part of the proprietor, his suppliers, and his customers was perhaps to convince the owner that he never should have tried retailing, especially in a site that never should have been used for the purpose.

Waste Due to Small Scale Operation

The second type of waste involved in our present method of trial-and-error retailing lies in the fact that many of the retail units are of uneconomic size. This waste is caused by the fact that large numbers of inefficient people continue to be in business, rather than the fact that they withdraw. Though the figures in this study tend to show that there is a greater rate of withdrawal among small firms than among large ones, there is nothing to indicate that the proportion of the small stores to the total independent stores is declining. It would appear that for every store of this type which withdraws, there is another which enters. There is also evidence to show that many of these small stores survive for an incredible length of time, in spite of the general high mortality. The fact that these stores survive, however, must not be taken to mean that they are successful in the business sense.

In the Eleven City Census it was found that 81.41 percent of the independent grocery and delicatessen stores had an annual volume of sales of less than $25,000, and that 27.42 percent had an annual volume of less than $5,000.* An annual volume of $5,000 means average daily sales of $16.03. The average net profits for grocery stores according to the best available information is less than two percent, when expenses for labor, rent, advertising, insurance, interest on investment, and the proprietor's salary are taken into account.† If we apply this two percent

**Retail and Wholesale Trade,* p. 97.

† Harvard Bureau of Business Research, *Bulletin No. 52,* 1925. This bulletin shows the common net profits for grocery stores of less than $30,000 annual volume as one percent on sales.

to the annual sales we secure a net profit of about $100 per year, or 32 cents a day.

However, as pointed out in a preceding chapter* the ordinary groceryman who operates a store of this type does not usually count his profits in this way. If he purchases goods at a dollar and sells them at a dollar and a quarter, he figures he has made almost 20 percent on his sales. If he uses part of his home as store space, employs no clerks, carries no insurance and does no advertising, his only expenses are wrapping paper and a few incidentals. If he sells $16.03 worth of goods a day he may figure his income at about three dollars. The income figured in this way is lower than that received in all but the lowest type of labor. However, considering the effort put forth, and the capacity of the people engaged in it, it is doubtful if it can be said that he is underpaid.

It has been stated in an earlier chapter that some of the retailers engaged in business in a small way are incapable of doing anything else. If they could not operate stores, some would probably be left to the support of charity; especially would this be true of the older persons who, in many instances, are physically incapacitated for manual labor. If the services performed by such retailers are worth what is paid to them, these stores cannot be said to be uneconomic units in themselves. However, there are many other people operating this type of small store who appear to be perfectly able-bodied and might well be engaged in occupations which would give them greater incomes, and in which they would be worth more to so-

* See Chapter VII, p. 72.

ciety.* These men are in the grocery business partly because of indolence, but probably more largely because their desire for independence is greater than their desire for income. Thus the small independent store, while offering an opportunity to some who are needy to eke out an existence, also offers to many others who are capable of doing more productive work an opportunity and an encouragement to live a life of comparative idleness.

The economic influence of these small stores cannot be treated without consideration of the services which they perform, and the prices which they charge for their goods. The fact that people do continue to trade at these small stores, and that chain stores and other large unit establishments have failed to gain a foothold in those sections of the city where this type of store is most prevalent, would indicate that the services and prices of these small stores are acceptable to those who deal with them. That many of these stores are conveniently located for the small populations they serve, there can be no doubt. It is also probable that the slip-shod credit methods used by many of these retailers appeal to their customers. It would even appear that the disorderly stock and the poverty-stricken appearances of the stores themselves attract many customers just because such conditions are in harmony with their living habits.

The question of whether or not the small retailers' prices are actually lower than those in larger stores is

*It must be realized that some of these merchants are engaged in other occupations, and operate their stores as side lines.

difficult if not impossible to determine.* Part of this difficulty arises from the fact that often when the proprietor of a small store finds it necessary to reduce his prices, he merely lowers his profit margin and continues in business. As he has no conception of actual costs in the accounting sense, and since he considers any price above what he pays for the goods as profit, he is in a position to withstand severe price competition over a relatively long period of time, either by lowering his standard of living, or by consuming part of his capital. Many of the stores of this type are so located that they compete only with the small stores, that is, in the poorer income districts. In these cases it is doubtful if there is much real competition among them, for their customers are usually poor judges of quality and often in buying on credit do not know what price has been charged "on the book."†

Waste Involved in Distributing Goods to Small Stores

In attempting to discover the economic waste incident to small scale retailing, it is necessary that we consider the retail store not only as a unit in itself, but also as an essential part of the productive process. Even if we assume that the small retail store is in itself a useful and economical factor in the distribution of goods, it might still be argued that it is wasteful if it tends to cause losses in other parts of the productive process.

*In his study of prices of fifty nationally advertised grocery products in New York City, Professor Alexander found lower prices in lower-income neighborhoods. R. S. Alexander. *A Study in Retail Grocery Prices*, published by The Journal of Commerce, 1929.

† Charity workers claim that one of their greatest difficulties in working with housewives in the low-income neighborhoods is to teach the women how to purchase groceries and especially to keep account of the prices paid.

The ordinary small retailer who has a volume of $5,000 or less per year perhaps purchases his goods from about six different wholesale grocers,* and numerous direct distributors, such as bakeries, dairies and specialty product manufacturers. If we leave out of account the other distributors, and assume that the six wholesale grocers supplied four-fifths of the products handled (i. e., to the amount of $4,000 retail sales) and further assume that the retailer's gross margin on sales was 20 percent we secure the figure $3,200 as the price of the goods purchased from the wholesalers. This amount divided by six gives us $533 as the average annual purchase from each of the wholesalers.† If we consider that each wholesaler receives one order a week from such a retailer, the average order would amount to about $10.††

No data are available for the grocery business to show the differential cost between securing and filling a small

* In our investigation of stores which had been in business throughout a period of eleven years, a number of proprietors stated that they purchased goods from "all" wholesalers, evidently meaning that they gave an order to every salesman who called.

† The amount here assumed seems large compared with an analysis of a Louisville wholesale grocer's customers according to size of annual purchase by the U. S. Department of Commerce. This showed:

40 percent of the customers purchased less than $50 per year
21 percent purchased from $ 50 to $100 per year
25 percent purchased from $100 to $250 per year
10 percent purchased from $250 to $500 per year
4 percent purchased over $500 per year

Domestic Commerce, Sept 30, 1929.

†† That orders of this size are not unusual is indicated by the following figures representing an analysis of the city orders of a wholesale grocery firm in 1928.

Percentage of orders	Size of orders
22	Under $ 5.00
23	$ 5.00 to $10.00
17	10.00 to 15.00
18	15.00 to 25.00
15	25.00 to 50.00
5	Over $50.00

J. W. Millard, *The Wholesale Grocer's Problems,* p. 23.

order and a large one. It is evident, however, that if for each order a salesman must interview the retailer, have the order taken, sent to the office, checked, invoiced, billed and delivered, and the bill collected, the selling expense will be proportionately larger for the small order. Mr. J. W. Millard of the Department of Commerce, who has studied this problem intensively, has made this striking statement: "The anxiety for increased volume without proper reckoning of cost probably leads distributors to seek orders in very small establishments to the point where the expenses of the several salesmen who call actually exceed the daily volume of the retailer."*

If it costs as much as $2.50 for the wholesaler to fill each $10 order, which would seem not an unwarranted estimate, considering the services which must be performed, then *the wholesalers are probably losing more in supplying these small stores, than the retailer is making in gross profits.*

The wholesaler usually prices his goods on a flat basis, i. e., he uses practically the same markup for all his customers.† In marking up his goods he attempts to cover the

**Wholesale Grocers' Problems*, J. W. Millard, Distribution Cost Studies No. 4. An analysis prepared by O. D. Street from the data of the Western Electric Company and published in *Analyzing Wholesale Distribution Costs*, shows the following with reference to the costs of small orders in the electric industry:

	Size of Order			
	$10-$25	$5-$10	Under $5	Over $25
Average value per order	17.18	7.25	2.40	137.80
Gross profit per order	4.48	2.07	.71	24.70
Expense per order	5.00	3.74	3.25	14.58
Loss per order	.52	1.67	2.54	10.12*

*Profit.

See also, Thomas M. McNiece, "Analysis of Wholesalers' Operating Costs," *Harvard Business Review*, October, 1928, p. 20.

† An exception to this rule is the practice of granting quantity discounts which gives some differential advantage to the purchaser who orders in large quantities.

cost of the goods to him, plus his expenses and a small profit. Until recently no cost studies were made to determine the costs of serving different types of customers with different sized orders; consequently wholesalers did not realize that they were losing money on small orders. Furthermore, the pressure exerted by manufacturers to secure intensive distribution has encouraged wholesalers to carry these losing accounts even when they surmised that they did not pay. To have refused to sell these retailers would have raised the objection that the wholesalers were not reaching their market. On the other hand, to have raised the price on these small orders to the point where it would cover the wholesalers' costs would have given the larger stores an opportunity to cut prices effectively, a policy against which wholesalers have always fought.

Under the present system the high cost of serving small retailers must necessarily be borne by the consumers who purchase from stores buying in large quantities. It is obvious from the figures given above that if wholesalers would use a selective system of distribution and would serve only the large-order stores, great savings could be made. Through competition these savings would be passed to the retailers purchasing in profitable quantities, and these in turn could give lower prices to the consuming public.

Two movements have started within recent years which tend to eliminate the high cost of small orders. One is that toward selective distribution by manufacturers, distributors, and wholesalers. In this movement the aim is to

eliminate the solicitation of orders from retailers who are too small to buy in profitable quantities. The other is the movement toward the establishment of voluntary chain organizations composed only of those stores which can buy in profitable quantities, and which are willing to pledge themselves to purchase a large proportion of their goods from a single wholesaler. If these movements progress, as there is every reason to believe that they will, they will tend to make it more difficult for the small store purchasing in small quantities to exist. The volume of many of these stores is such that even if they purchased all their goods from a single wholesaler, their business still would not be profitable to the wholesaler.

Duplication of Establishments

The third great waste is concerned with the duplication of establishments. When one observes the large number of stores situated closely together in the same neighborhood, each carrying the same goods and apparently performing the same services in the same way, the question naturally arises, could not this service be performed more economically by fewer units. This observation has led some commentators to state that one-half of those in the retail business might be eliminated,* with a reduction in the costs of distribution, and therefore in prices. In the city of Buffalo there were in 1928, 1674 independent retail grocery stores. If to these 1674 we apply the proportionate distribution according to sales found in the eleven city census we derive the figures given in Table 31.†

*Isador Lubin, "The Economic Costs of Retail Distribution," *22nd Annual Report*, Michigan Academy of Arts and Sciences.
† *Retail and Wholesale Trade*, p. 97.

TABLE 31. Distribution of Buffalo Grocery Stores According to Estimated Sales.

Sales per unit	Percentage of Stores	Number of Buffalo Stores
Less than $5,000	27.42	459
5,000 to 9,999	21.47	359
10,000 to 24,999	32.52	544
25,000 to 49,999	12.93	216
50,000 and over	5.66	95
Total	100.00	1674

We have estimated that the total amount of business done by the independent grocery stores of Buffalo in 1928 was $29,000,000. If we assume that the minimum profitable unit store sells $50,000 worth of goods a year, it would require only 580 stores of this type to do the work of 1674. That great savings would result from the transfer of much of the invested capital, and many of the people employed in the remaining 1094 stores to more productive enterprise, is manifest. However, it is possible that such a reduction in the number of stores in many sections of this city would cause an inconvenience to customers which would more than offset the advantages from the point of view of business.

A certain amount of duplication of services is inevitable in a competitive economic system. Every time a new store enters business, regardless of how efficient it may be, it must duplicate the efforts of those who are already in business for a time at least. However, when we consider that almost a third of the total number of independent stores withdraw each year, and almost the same number enter, it is evident that the duplication of effort is much greater than is necessary for securing economy through competition.

In our analysis above we have shown that the total business losses due to failure in the grocery business probably amount to about 1.66 percent of sales, some of which is spread over the price of goods. There are as well real economic losses consisting of effort spent in getting into and in getting out of the business, in inconvenience to consumers, in the uneconomic utilization of buildings and equipment, in changing the sources of supply, and in the closing and opening of new channels.

There are also continuing losses attributable to the fact that small, unprofitable and inefficient units are allowed to continue in business. Such losses largely fall immediately upon the wholesalers and suppliers who fill their small and intermittent orders, and are borne ultimately by the consuming public through higher prices. Finally there is waste in the excessive duplication of retail outlets.

Can we, against these wastes, place many of the gains which are attributed to our free and unrestricted competition? That monopoly is effectually avoided is obvious from the fact that great numbers of people entered the business during the last ten years. The opportunity for entering the business is open to almost anyone who has the desire. But due to this fact, and because of the ignorance of customers as to quality and prices of goods, and lack of knowledge on the part of retailers as to their costs, it is doubtful if prices under this excessive competition are so low as the protagonists of the competitive system would assume. Though the competitive system implies that the efficient are encouraged and the inefficient are eliminated, the facts presented here tend to suggest that the inefficient

merchants may survive for even longer periods of time in some cases than the more efficient ones, since the latter often find other employments more quickly.

Throughout our study we have pointed out that *the chief reason for the high mortality rate has been the ease with which the retail business can be entered.* The fact that large numbers of retailers fail each year seems to affect but little the numbers of newcomers who wish to enter the business. The reason for this is evident. *The newcomers do not know the hazards of the business they are undertaking.* The people best in position to know these hazards and to inform the retailers are the wholesalers, distributors and rental agencies, but competition is such in these businesses that they have never considered it to their advantage to discourage a would-be customer. Thus the retailer is left to himself to learn by bitter experience what thousands have learned before him in the same way. "If I had known the risks involved in independent retailing I should not have attempted it, and would now be worth $10,000 instead of nothing," said a former retailer to the writer.

Possible Remedies

If the chief cause for the high rate of mortality for retail stores is the ease of entrance into the business as compared with other businesses, it is evident that the remedy would lie along the line of keeping incompetents out of the business. Already we have spoken of selective distribution and voluntary chains as methods of securing more efficient distribution by way of reducing unprofitably

small orders. Both of these new methods have a tendency to make it more difficult for the incompetent newcomer to enter business. Through their efforts to aid the better type of retailer and to secure more efficient outlets, they naturally close the door to those who are less likely to be successful. Though both of these methods have grown rapidly during the last few years, there are still large numbers of wholesalers who are willing to sell goods on credit to almost anyone who wishes to open a grocery store. Furthermore there are specialty manufacturers who make a practice of selling direct on small orders and who do not even attempt to look up the credit ratings of the retailers to whom they sell.*

Another proposed method of eliminating the incompetent retailers consists of legislative requirements that all retailers pass a simple examination before obtaining a dealer's license.† This method would doubtless prevent numerous people who are illiterates from entering business. However, it is doubtful if it would secure the results expected, for the greatest number of failures are probably due to lack of enterprise and foresight which cannot be tested, rather than to the ability to answer questions on the business. Furthermore, it is not likely that our government would ever pass laws to restrict the right to free entrance into such a field as the retail grocery or similar trades — unless indeed, all industry became socialized.††

*These manufacturers claim that it would cost them more to trace credit ratings, than they lose through failures. Losses from failures are minimized, however, by granting only short time credit on small orders followed by a strict collection policy, no new orders being delivered until previous bills are paid.

† Paul Converse, *Elements of Marketing*, p. 815.

†† Cf. Nystrom, *Economics of Retailing*, Vol. 1, p. 411.

If the chain store type of merchandising is extended to the point where it can profitably care for the business in all communities, in time the high failure rate among the independents will be reduced, merely because of declining numbers and the fact that those independent merchants who remain will necessarily become more efficient. There is no indication of this coming about in the immediate future. The cry of monopoly against the chain store will tend to prevent its expansion at any rapid rate at the expense of independent store owners.

In our analysis of the reasons people entered the retail business, we found that in a large number of cases the would-be entrant had either lost his job or was in fear of losing it. In other words the fear of unemployment is a major contributing factor in influencing a large number of people to enter the retail business. If this be true, then one preventive lies in some type of unemployment insurance. It is probable that, if such insurance were available, large numbers of men who now quit their jobs as soon as they have accumulated a little capital, and enter the retail business, would much prefer to work for a wage. This would be especially true if they knew the chances they run of losing all their capital if they open a store.

The real remedy seems to lie in education—not merely in the education of the retailer in the methods of conducting a business, effective as that may be, but education of wholesalers and manufacturers as to the most economical outlets for their goods. Education of the general public as to the hazards involved in the retail trades would also

serve as a deterrent to reckless entrance into them. Such education must be based upon a more extended analysis of facts than is now available. The Louisville Survey and the Census of Distribution have done much to throw light upon general problems of which little was known before; and it is hoped that the present study may suggest new and further lines of inquiry.

APPENDIX A.

Basic Tables

Tables 32, 33, 34 and 35 contain the original counts from which the percentages given in Tables 2, 7, 12 and 17 respectively of the text are computed.

Tables 36, 37, 38 and 39 contain the original data from which the "Life Expectancy" of Tables 3, 8, 13 and 18 respectively of the text are computed.

TABLE 32. NUMBER OF GROCERY STORE ENTRANCES EACH YEAR DISTRIBUTED ACCORDING TO THEIR LENGTH OF LIFE.

Years of Entrance	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	Number continuing in 1928	Total Entrances
1919	317	74	32	26	12	10	7	4	11	26	519
1920	286	78	47	25	14	6	15	10		34	515
1921	312	95	49	26	17	14	14			42	569
1922	406	94	34	19	27	16				67	663
1923	435	96	44	39	21					105	740
1924	433	83	70	27						87	700
1925	440	120	38							136	734
1926	465	48								172	685
1927	369									272	641
Total	3,463	688	314	162	91	46	36	14	11	941	5,766

TABLE 33. NUMBER OF DRUG STORE ENTRANCES EACH YEAR DISTRIBUTED ACCORDING TO THEIR LENGTH OF LIFE.

Years of Entrance	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	Number continuing in 1928	Total Entrances
1919	6	1	2	2	1	2	1	0	0	6	21
1920	1	4	2	3	1	2	3	1		15	32
1921	5	2	3	1	0	2	3			8	24
1922	13	6	7	2	1	5				16	50
1923	10	4	5	6	5					19	49
1924	15	1	4	4						18	42
1925	16	5	4							16	41
1926	6	6								21	33
1927	14									17	31
Total	86	29	27	18	8	11	7	1	0	136	323

TABLE 34. NUMBER OF HARDWARE STORE ENTRANCES EACH YEAR DISTRIBUTED ACCORDING TO THEIR LENGTH OF LIFE

Years of Entrance	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	Number continuing in 1928	Total Entrances
1919	11	1	4	1	3	0	0	0	0	3	23
1920	5	5	2	2	0	2	0	1		7	24
1921	11	8	2	1	0	0	0			4	26
1922	4	1	1	1	1	1				10	19
1923	13	2	5	1	0					20	41
1924	11	4	2	1						9	27
1925	12	2	2							7	23
1926	10	7								17	34
1927	6									18	24
Total	83	30	18	7	4	3	0	1	0	95	241

TABLE 35. NUMBER OF SHOE STORE ENTRANCES EACH YEAR DISTRIBUTED ACCORDING TO THEIR LENGTH OF LIFE.

Years of Entrance	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	Number continuing in 1928	Total Entrances
1919	11	6	4	3	5	1	0	0	0	8	38
1920	20	4	4	4	0	0	0	0		8	40
1921	8	4	3	2	1	3	2			2	25
1922	22	7	5	1	1	0				8	44
1923	28	6	7	4	3					17	65
1924	30	5	4	3						9	51
1925	12	4	4							11	31
1926	21	11								18	50
1927	19									26	45
Total	171	47	31	17	10	4	2	0	0	107	389

TABLE 36. Number of Grocery Firms which had Opportunities of Surviving and the Numbers which did Survive for Various Numbers of Years; and the Computed "Life Expectancy."

Number of Years	Number of Firms having Opportunities to Survive	Number of Firms Surviving	"Life Expectancy"
1	6268	6268	100.0
2	5766	2303	40.0
3	5125	1343	26.2
4	4440	857	19.3
5	3706	559	15.1
6	3006	381	12.7
7	2266	230	10.2
8	1603	127	7.9
9	1034	71	6.9
10	519	26	5.0

TABLE 37. Numbers of Drug Firms which had Opportunities of Surviving and the Numbers which did Survive for Various Numbers of Years; and the Computed "Life Expectancy."

Number of Years	Number of Firms having Opportunities to Survive	Number of Firms Surviving	"Life Expectancy"
1	369	369	100.0
2	323	237	73.4
3	293	191	65.4
4	259	143	55.2
5	218	109	50.0
6	176	83	47.1
7	127	53	41.7
8	77	30	38.9
9	53	21	39.6
10	21	6	28.6

TABLE 38. NUMBERS OF HARDWARE FIRMS WHICH HAD OPPORTUNITIES OF SURVIVING AND NUMBERS WHICH DID SURVIVE FOR VARIOUS NUMBERS OF YEARS; AND THE COMPUTED "LIFE EXPECTANCY."

Number of Years	Number of Firms having Opportunities to Survive	Number of Firms Surviving	"Life Expectancy"
1	254	254	100.0
2	241	158	65.5
3	217	110	50.7
4	183	75	41.0
5	160	61	38.1
6	133	48	36.1
7	92	25	27.2
8	73	15	20.5
9	47	10	21.3
10	23	3	13.0

TABLE 39. NUMBERS OF SHOE FIRMS WHICH HAD OPPORTUNITIES OF SURVIVING AND NUMBERS WHICH DID SURVIVE FOR VARIOUS NUMBERS OF YEARS; AND THE COMPUTED "LIFE EXPECTANCY."

Number of Years	Number of Firms having Opportunities to Survive	Number of Firms Surviving	"Life Expectancy"
1	413	413	100.0
2	389	218	56.2
3	344	145	42.2
4	294	96	32.6
5	263	68	25.8
6	212	49	23.2
7	147	28	19.1
8	103	18	17.5
9	78	16	20.5
10	38	8	21.1

APPENDIX B.

SUPPLEMENTARY STUDIES

I. An analysis of the distribution of independent stores in Buffalo according to their credit ratings.

II. A study of the relationship between the grocery stores per 1000 inhabitants, the proportion of chain grocery stores to all grocery stores, and the mortality rates in 1928, by wards, as determined by partial correlation.

TABLE 40. DISTRIBUTION OF INDEPENDENT GROCERY, DRUG, HARDWARE, AND SHOE STORES IN BUFFALO ACCORDING TO THEIR ESTIMATED PECUNIARY STRENGTH.*

Estimated Pecuniary Strength (Thousands of Dollars)	Grocery Stores		Drug Stores		Hardware Stores		Shoe Stores	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
200—300					1	.8	2	1.4
125—200					0	.0	0	.0
75—125	2	.1	1	.4	1	.8	0	.0
50—75	0	.0	4	1.9	0	.0	0	.0
35—50	2	.1	4	1.9	2	1.6	4	2.7
20—35	7	.4	13	6.4	4	3.1	5	3.4
10—20	21	1.2	20	9.8	20	15.6	7	4.8
5—10	81	4.6	49	24.1	28	21.8	20	13.6
3—5	142	8.2	36	17.7	22	17.2	32	21.8
2—3	208	11.9	19	9.3	17	13.3	15	10.2
1—2	332	19.2	13	6.4	6	4.7	11	7.5
.5—1	477	27.4	3	1.5	2	1.6	5	3.4
Less than .5	346	19.8	4	1.9	2	1.6	8	5.4
No listing	123	7.1	38	18.7	23	17.9	38	25.8
Total	1741	100.0	204	100.0	128	100.0	147	100.0

* The analysis of ratings given above is made from the listings in *The Mercantile Agency Reference Book*, January, 1929, R. G. Dun and Company, New York.

TABLE 41. Distribution of Independent Grocery Stores in Buffalo According to their Estimated Pecuniary Strength and Credit Ratings.*

Estimated Pecuniary Strength	Credit Rating: High	Good	Fair	Limited	Total	Percent
$125,000—75,000	1	1			2	.1
75,000—50,000						.0
50,000—35,000		2			2	.1
35,000—20,000	2	4		1	7	.4
20,000—10,000		19	2		21	1.2
10,000— 5,000		52	27	2	81	4.6
5,000— 3,000		67	65	10	142	8.2
3,000— 2,000		77	113	18	208	11.9
2,000— 1,000		96	199	37	332	19.2
1,000— 500			268	209	477	27.4
Less Than 500		130	33	183	346	19.8
Not given		2	52	69	123	7.1
Totals	3	450	759	529	1741	100.0
Percent	.8	25.6	43.4	30.2	100.0	

* The analysis of ratings given above is made from the listings in *The Mercantile Reference Book*, January, 1929, R. G. Dun and Company, New York.

APPENDIX B.

II

A Study of the Relationship Between the Density of Grocery Stores, the Percentage Chain Grocery Stores, and the Mortality Rates, by Wards

The following study was undertaken to determine if possible the degree of relationship existing between the number of grocery stores per 1000 inhabitants, the proportion of chain grocery stores to all grocery stores, and the mortality rates for independent grocery stores. The data for this study are given in Table 42. It was thought that a measure of the relationships might be computed by applying the methods of partial correlation to these ratios for the various wards. Due to the inadequacy of our figures, the results of this study are inconclusive and throw little light upon our general problem. However, it is believed that the method might be used to advantage in further studies of this character where adequate data are available. This study is therefore presented as a type of analysis which under different conditions might produce significant results.

TABLE 42. Total Grocery Stores per 1000 Inhabitants, Percentage of Chain Grocery Stores to All Grocery Stores, and the Mortality Rates for Independent Grocery Stores in 1927, by Wards.

Ward	Grocery Stores per 1000 Inhabitants (x)	Percentage Chain Stores (y)	Mortality Rate (1927)* (z)
1	4.75	9.9	36.5
2	9.56	3.6	24.7
3	6.17	7.6	31.5
4	4.67	22.4	34.5
5	3.09	34.0	30.8
6	4.94	11.4	32.5
7	5.74	9.2	32.8
8	3.66	14.0	40.9
9	5.03	3.0	28.2
10	4.58	2.6	29.4
11	4.80	8.1	31.5
12	3.25	23.3	50.0
13	3.55	22.5	27.3
14	3.42	12.8	26.8
15	3.63	13.9	36.8
16	3.83	6.1	31.0
17	2.81	30.9	40.0
18	2.39	39.3	35.1
19	3.07	29.5	37.3
20	2.69	46.0	39.5
21	4.91	17.5	28.3
22	4.12	32.1	30.2
23†			
24	4.58	19.8	35.9
25	2.16	36.6	32.1
26	5.11	10.2	28.1
27	6.07	4.3	29.8

*The mortality rates in this column are for the year 1927, while the number of stores per 1000 inhabitants and the percentage chain stores are given as of 1928. These are the only figures available by wards.

† The figures for Ward 23 have been omitted from this computation because the number of independent stores in this ward is too small to give meaning to the mortality rate involved.

Simple Correlation

The simple correlation coefficient for columns x and y of Table 42 is—.71. This relatively high negative cor-

relation coefficient indicates that there is a strong tendency for the percentage of chain stores to all stores to be high in those wards where there are few stores per 1000 inhabitants, as was explained in Chapter XI.

The correlation coefficient for columns x and z is —.49, which indicates that those wards having the greater density of stores per 1000 inhabitants, have the lower mortality rates.

The correlation coefficient for columns y and z is +.41, which indicates that in those wards where chain stores are in greatest proportion may be found the higher mortality rates.

If it is assumed for the purpose of this study that the mortality rates are dependent upon the number of stores per 1000 population and the percentage of chain stores to all stores, the simple correlations given above are of little value in measuring the influence of either of the independent variables. As those wards which have the fewer stores per 1000 inhabitants are in general the same wards which have a larger proportion of chain units, it is readily seen that the simple correlations used may measure the same factor. In order to segregate the influence of each of the independent variables upon the mortality rates, it is necessary to hold one of these independent variables constant, and by means of partial correlation study the relationship between the other independent variable and the dependent variable.

Partial Correlation

If we hold Column y (the percentage chain stores to all

stores) constant, the correlation coefficient between Column x, (the number of stores per 1000 inhabitants) and Column z, (the mortality rates for independent stores) is —.31.* This negative coefficient of correlation, though too small to be significant, still indicates that the greater the density of stores per 1000 population the less mortality rate for independent stores, even when the percentage of chain stores to all stores is held constant.

If we hold Column x (the number of stores per 1000 inhabitants) constant, the correlation coefficient between Column y (the percentage of chain stores to all stores) and Column z (the mortality rate) is + .10.† This low positive correlation ratio indicates that there is practically no relationship between the percentage of chain stores and the mortality rates.

Neither of these partial correlation coefficient is sufficiently large to be significant. If these coefficients were based upon adequate data, it might be well argued that there is practically no relationship between the density of stores and the mortality rates, or between the percentage chain stores and the mortality rates. Even this generalization, however, is strictly limited. In the first place, only two of a multitude of factors which may have an influence on mortality rates have been selected. Secondly, the observations are limited to 26 wards, a number too small to give conclusive results under any circumstances. Thirdly, the mortality rates used are for a single year, and the rates taken for another year might produce entirely different results.

* The probable error for this coefficient is .12.
† The probable error for this coefficient is .13.

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